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APPENDICE I

PRONTUARI
PER LA CONVERSIONE
DELLE COORDINATE RETTILINEE IN COORDINATE SFERICHE
NELLE ZONE ASTROGRAFICHE VATICANE

CALCOLATI DA

V. CERULLI

ASTRONOMO ONORARIO DELLA SPECOLA VATICANA

ROMA
TIPOGRAFIA POLIGLOTTA VATICANA

1920

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I presenti Prontuarî sono stati costruiti dal sig. V. Cerulli, per uso dei computisti della Specola vaticana, i quali dovranno servirsene quando si tratterà di ridurre in coordinate sferiche le coordinate rettilinee di tutte le stelle delle Zone vaticane. Siccome però quest'ultimo lavoro resta presumibilmente rimesso a dopo completata la riosservazione delle stelle di confronto e corrette le costanti delle lastre, così ci è parso che i detti Prontuarî dovessero formare fin da ora oggetto di pubblicazione, nell'intento di fornire agli astronomi un altro mezzo rapido di deduzione delle posizioni sferiche, oltre quello già loro offerto mediante le ingegnose tavole del Prof. Turner.

Mentre ci lusinghiamo di aver per tal modo contribuito a facilitare sempre più l'impiego delle Zone vaticane, ci professiamo gratissimi al nostro illustre amico e collega sig. Cerulli della nuova prova di affetto che col suo lavoro gli è piaciuto di dare a noi ed alla Specola.

Roma, 15 agosto 1917.

I. G. Hagen S. I.

INTRODUZIONE.

FORMULE DELLA PROIEZIONE GNOMONICA E LORO SVILUPPI UTILI NEL CALCOLO DEI PRONTUARÎ.

I nostri Prontuarî dànno direttamente l'AR. e la Decl. di tutti i punti d'incrocio delle linee del reticolo *teorico*, di quel reticolo cioè cui si riferiscono le coordinate rettilinee teoriche (le *Standard Coordinates* del Turner) ξ ed η. Da tali punti d'incrocio si passa ai punti stellari mediante semplici interpolazioni che si eseguono *a vista*, servendosi delle apposite tavole di moltiplicazione aggiunte in fine del Volume, Parte III.

A. – Primo metodo di costruzione dei Prontuarî.

1. Il metodo che primo si presenta per il calcolo dei nostri Prontuarî consiste nel servirsi delle formule originali della proiezione gnomonica.

Dette A e D l'AR. e la Decl. del centro della lastra,

a e δ » » di un punto qualunque di essa,

ξ e η le coordinate teoriche dello stesso punto,

e definita la Declinazione ausiliaria Δ secondo la formula:

$$\mathrm{tg}\,(\Delta - D) = \frac{\eta}{f},$$

dove $f = \frac{1}{5}\,\frac{10800}{\pi}$ è la distanza focale in unità di η, le coordinate a e δ risultano dalle note relazioni:

$$\mathrm{tg}\;(a - A) = \frac{\xi}{f}\;\frac{\cos\;(\Delta - D)}{\cos\;\Delta}, \qquad \text{(I)}$$

$$\mathrm{tg}\;\delta = \mathrm{tg}\;\Delta\;\cos\;(a - A). \qquad \text{(II)}$$

2. Il calcolo di queste formule diventa rapidissimo quando lo si faccia dipendere da due tavole ausiliarie, una delle quali, variante di zona in zona, dia, con argomento η, le quantità:

$$Q = \frac{1}{f}\;\frac{\cos\;(\Delta - D)}{\cos\;\Delta} \;\ldots\ldots\; \text{(in secondi di tempo)}$$

$$P = \mathrm{logtg}\;\Delta,$$

e l'altra, valevole per tutte le zone, dia, secondo l'argomento $Q\xi$, i valori

$$q = \mathrm{tg}\;(a - A) - (a - A) \;\ldots\ldots\; \text{(in secondi di tempo)}$$

$$p = \mathrm{logsec}\;(a - A).$$

Con l'aiuto, infatti, di queste tavole, il calcolo di una stella avente le coordinate teoriche ξ ed η, si riduce alle due semplici operazioni:

$$a - A = Q\xi - q,$$

$$\mathrm{logtg}\;\delta = P - p.$$

Simili tavole furono effettivamente preparate per la Zona $+64°$, e vogliamo qui riprodurle, sembrandoci che esse offrano il mezzo più spedito di conversione delle ξ ed η in a e δ *per stelle isolate*, mentre

d'altra parte è minimo il lavoro che va speso nel loro calcolo, cosicchè potrebbero in brevissimo tempo essere costruite per tutte le Zone astrografiche non immediatamente prossime ai poli, e sarebbero molto comode per gli astronomi che devono attingere posizioni dall'uno o dall'altro catalogo astrografico senza aver troppa voglia di previamente istruirsi circa il modo come le tavole di conversione delle coordinate rettilinee in sferiche siano nei diversi cataloghi elaborate e disposte.

Tavola I. per trovare P e Q.

Zona +64°.

$26+2\eta$	$\log Q$	diff.	P	diff.	$26+2\eta$	$\log Q$	diff.	P	diff.
0	1.642670	624	0.291277	779	**26**	1.659188	648	0.311818	802
1	1.643294	625	0.292056	780	**27**	1.659836	650	0.312620	803
2	1.643919	625	0.292836	781	**28**	1.660486	649	0.313423	804
3	1.644544	626	0.293617	782	**29**	1.661135	651	0.314227	805
4	1.645170	628	0.294399	783	**30**	1.661786	652	0.315032	806
5	1.645798	629	0.295182	783	**31**	1.662438	653	0.315838	806
6	1.646427	629	0.295965	784	**32**	1.663091	653	0.316644	808
7	1.647056	629	0.296749	786	**33**	1.663744	656	0.317452	808
8	1.647685	632	0.297535	786	**34**	1.664400	656	0.318260	810
9	1.648317	632	0.298321	787	**35**	1.665056	657	0.319070	810
10	1.648949	632	0.299108	788	**36**	1.665713	657	0.319880	812
11	1.649581	634	0.299896	789	**37**	1.666370	659	0.320692	812
12	1.650215	636	0.300685	789	**38**	1.667029	660	0.321504	812
13	1.650851	635	0.301474	790	**39**	1.667689	660	0.322316	814
14	1.651486	637	0.302264	791	**40**	1.668349	663	0.323130	816
15	1.652123	638	0.303055	792	**41**	1.669012	663	0.323946	816
16	1.652761	638	0.303847	793	**42**	1.669675	664	0.324762	817
17	1.653399	640	0.304640	794	**43**	1.670339	664	0.325579	818
18	1.654039	639	0.305434	795	**44**	1.671003	666	0.326397	819
19	1.654678	642	0.306229	796	**45**	1.671669	667	0.327216	820
20	1.655320	642	0.307025	797	**46**	1.672336	668	0.328036	820
21	1.655962	643	0.307822	797	**47**	1.673004	669	0.328856	822
22	1.656605	645	0.308619	799	**48**	1.673673	670	0.329678	823
23	1.657250	645	0.309418	799	**49**	1.674343	671	0.330501	824
24	1.657895	646	0.310217	800	**50**	1.675014	672	0.331325	826
25	1.658541	647	0.311017	801	**51**	1.675686	673	0.332151	825
26	1.659188		0.311818		**52**	1.676359		0.332976	

Qui è sostituito l'argomento $26+2\eta$ all'argomento η per evitare nelle prime colonne i numeri negativi ed i frazionarî che figurano nella serie originale degli argomenti:

$-13 \quad -12.5 \quad -12 \; \ldots\ldots \; -1.5 \quad -1 \quad -0.5 \quad 0 \quad +0.5 \quad +1 \quad +1.5 \; \ldots\ldots \; +12 \quad +12.5 \quad +13$

per i quali P e Q vennero direttamente calcolati. *

Tavola II. Per trovare p e q.

(p in unità della 6ª decimale).

$Q\xi$	q	p	Δ	$Q\xi$	q	p	Δ	$Q\xi$	q	p	Δ	$Q\xi$	q	p	Δ
m s	s			m s	s			m s	s			m s	s		
0 0	0.00	0		3 0	0.01	37		6 0	0.08	149		9 0	0.28	335	
10	0.00	0		10	0.01	41	4	10	0.09	157	8	10	0.29	347	12
20	0.00	0		20	0.01	46	5	20	0.10	166	9	20	0.31	360	13
30	0.00	1		30	0.02	51	5	30	0.10	175	9	30	0.33	373	13
40	0.00	2		40	0.02	56	5	40	0.11	184	9	40	0.34	386	13
50	0.00	3		50	0.02	61	5	50	0.12	193	9	50	0.36	400	14
1 0	0.00	4		4 0	0.02	66	5	7 0	0.13	203	10	10 0	0.38	414	14
10	0.00	5		10	0.03	72	6	10	0.14	213	10	10	0.40	428	14
20	0.00	7		20	0.03	78	6	20	0.15	223	10	20	0.42	442	14
30	0.00	9		30	0.04	84	6	30	0.16	233	10	30	0.44	456	14
40	0.00	11		40	0.04	90	6	40	0.17	243	10	40	0.46	470	14
50	0.00	14	3	50	0.04	96	6	50	0.18	254	11	50	0.48	485	15
2 0	0.00	17	3	5 0	0.05	103	7	8 0	0.19	265	11	11 0	0.51	500	15
10	0.00	20	3	10	0.05	110	7	10	0.21	276	11				
20	0.01	23	3	20	0.06	117	7	20	0.22	287	11				
30	0.01	26	3	30	0.06	125	8	30	0.23	299	12				
40	0.01	29	3	40	0.07	133	8	40	0.25	311	12				
50	0.01	33	4	50	0.08	141	8	50	0.26	323	12				
3 0	0.01	37	4	6 0	0.08	149	8	9 0	0.28	335	12				

3. Un **esempio** chiarirà brevemente l'uso di queste due tabelle.

Siano proposte, per la Zona $+64^\circ$, da convertire in coordinate sferiche le coordinate teoriche ** $\xi=+11.297$ $\eta=+12.471$. Formato l'argomento $26+2\eta=50.942$ si entra con esso nella tav. I, che dà $\log Q=1.675647$ $P=0.332103$. Dopo di che il calcolo prende la seguente forma:

$$\begin{array}{ll} \text{Tav. I:} & \log Q \;= 1.675647 \\ & \log \xi \;= 1.052963 \\ \hline & \log Q\xi = 2.728610 \end{array}$$

* Chi trovasse le differenze tabulari nella precedente Tavola troppo forti per una comoda interpolazione, potrebbe, senz'altra fatica che quella materiale di scrivere molti numeri, ridurre alla decima parte gl'intervalli fra i successivi argomenti, con che le differenze in $\log Q$ verrebbero a variare fra 62 e 68 e quelle in P fra 77 e 83, e le interpolazioni si farebbero a vista, mediante le solite tabelline di parti proporzionali.

** A somiglianza delle coordinate *misurate* x ed y, anche le coordinate teoriche ξ ed η vengono limitate a 3 decimali, una ulteriore precisione essendo, negli attuali cataloghi astrografici, illusoria (vedi vol. I, Introduzione di Hagen, pag. XX seg.).

$$Q\xi = +8^{m}\ 55^{s}.32 \qquad P = 0.332103$$
$$\text{Tav. II:}\ q = \quad 0.27 \qquad p = \quad 329$$
$$\alpha - A = +8\ 55.05 \qquad P - p = 0.331774$$
$$\delta = +65^{\circ}\ 1'\ 21''.3.$$

Se la ξ fosse stata negativa, il calcolo sarebbe rimasto lo stesso: solo avremmo dovuto prendere negativamente il valore di $\alpha - A$.

4. Come nell'esempio ora addotto è preso un punto qualunque della lastra, così è ovvio che potremmo successivamente prendere tutti i punti d'incrocio del reticolo teorico. Le formule fondamentali della proiezione gnomonica ci darebbero quindi, già da sole, mediante le tabelle ausiliarie sopra descritte, un mezzo semplice e spedito per costruire i nostri Prontuarî. Ma, come si vedrà nel capitolo seguente, più semplici ancora delle formule fondamentali e più di esse opportune nel caso pratico che contempliamo, sono taluni loro sviluppi, ottenuti secondo la regola di Taylor.

B. – Secondo metodo di costruzione dei Prontuarî.

5. La ragione per la quale è bene, nella costruzione dei Prontuarî, abbandonare le formule fondamentali, è che, se nel caso di stelle spicciole, l'astronomo che consulta gli attuali cataloghi astrografici può contentarsi di un calcolo a sei decimali, usando tabelle simili a quelle del paragrafo precedente, quando invece si tratti di elencare le posizioni sferiche di tutti i punti d'incrocio del reticolo, queste devono presentarsi esatte, almeno nei centesimi di secondo di tempo le Asc. Rette, e nei decimi di secondo d'arco le Declinazioni. Ora ciò non sarebbe possibile se si calcolassero le formule fondamentali con 6 decimali. * Occorrerebbero 7 decimali, e ne risulterebbe sopra 378 punti da calcolare per ciascheduna Zona, un aumento considerevole di fatica.

Alle formule fondamentali ho quindi sostituito altre formule, ottenute con sviluppi di Taylor, analoghe ma molto più semplici e pratiche di quelle elencate in appendice ad una Memoria di 10 anni fa. ** Vogliamo qui brevemente dedurle.

1) Differenziando la fondamentale (I) si trovano facilmente le seguenti espressioni:

$$f\frac{d\alpha}{d\xi} = \frac{\cos(\Delta - D)}{\cos\Delta}\cos^2(\alpha - A) \tag{1}$$

$$f^2\frac{d^2\alpha}{d\xi^2} = -2\,\frac{\cos^2(\Delta - D)}{\cos^2\Delta}\cos^3(\alpha - A)\sin(\alpha - A) \tag{2}$$

$$f^3\frac{d^3\alpha}{d\xi^3} = -2\,\frac{\cos^3(\Delta - D)}{\cos^3\Delta}\cos^4(\alpha - A)\left[1 - 4\sin^2(\alpha - A)\right] \tag{3}$$

delle quali la seconda si annulla, e le due altre si riducono rispett.^{te} a $\frac{\cos(\Delta - D)}{\cos\Delta}$ e $-2\frac{\cos^3(\Delta - D)}{\cos^3\Delta}$ quando vi si ponga $\alpha = A$, ossia lungo l'asse delle η. Ne segue che applicando lo sviluppo di Taylor:

$$\alpha - A = (\alpha - A)_0 + \left|\frac{d\alpha}{d\xi}\right|_0 \xi + \frac{1}{1.2}\left|\frac{d^2\alpha}{d\xi^2}\right|_0 \xi^2 + \frac{1}{1.2.3}\left|\frac{d^3\alpha}{d\xi^3}\right|_0 \xi^3 + \cdots\cdots$$

* Calcolando i Prontuarî dalle formule fondamentali, a 6 decimali, le piccole incertezze nei decimi di secondo delle declinazioni avrebbero qua e là dato origine all'inconveniente del presentarsi, tra due successive declinazioni di una stessa colonna, differenze $> 300''$, mentre la teoria mostra (v. pag. XIII) che $300''$ è il massimo valore che esse possono raggiungere.

** V. Cerulli, « Proposta di un catalogo stellare interamente fondato sulla fotografia ». *Memorie degli Spettroscopisti italiani*, XXXVI (1907), 113-132.

potremo, per essere $(a - A)_0 = 0$, porre, senza errore sensibile:

$$a - A = \frac{1}{f} \frac{\cos(\Delta - D)}{\cos \Delta} \xi - \frac{1}{3f^3} \frac{\cos^3(\Delta - D)}{\cos^3 \Delta} \xi^3. \tag{4}$$

Questa formula è per altro identica a quella data nel par. precedente: $a - A = Q\xi - q$, e rappresentano entrambe il noto sviluppo di $a - A$ secondo le potenze di $\mathrm{tg}\,(a - A)$.

2) Un vero vantaggio dello sviluppo in serie di Taylor s'incontra nel calcolo delle δ. Differenziando la formula fondamentale (II) e tenendo presente la (1) si ha:

$$f \frac{d\delta}{d\xi} = - \mathrm{k} \sin \Delta \cos(\Delta - D) \sin(a - A) \tag{5}$$

dove

$$\mathrm{k} = \frac{\cos^2(a - A)}{1 - \sin^2 \Delta \sin^2 (a - A)}.$$

Differenziando in seguito la (5) ed osservando che:

$$\frac{d\mathrm{k}}{da} = - 2\mathrm{k}^2 \cos^2 \Delta \frac{\sin(a - A)}{\cos^3(a - A)},$$

si ottiene:

$$f^2 \frac{d^2\delta}{d\xi^2} = - \mathrm{tg}\, \Delta \cos^2(\Delta - D) \left\{ \mathrm{k} \cos^3(a - A) - 2\, \mathrm{k}^2 \cos^2 \Delta \frac{\sin^2(a - A)}{\cos(a - A)} \right\} \tag{6}$$

e da questa risulta poi:

$$f^3 \frac{d^3\delta}{d\xi^3} = \frac{\mathrm{k} \sin \Delta \cos^3(\Delta - D)}{\cos^2 \Delta} \left\{ 3 \cos^4(a - A) + 2\, \mathrm{k} \cos^2 \Delta [1 + 2 \cos^2(a - A)] - 8\, \mathrm{k}^2 \cos^4 \Delta\, \mathrm{tg}^2(a - A) \right\} \sin(a - A). \tag{7}$$

Se infine differenziamo quest'ultima e ci limitiamo a scrivere i soli termini che non s'annullano per $a = A$, troviamo:

$$f^4 \frac{d^4\delta}{d\xi^4} = \frac{\mathrm{k} \sin \Delta \cos^4(\Delta - D)}{\cos^3 \Delta} \left\{ 3 \cos^4(a - A) + 2\mathrm{k} \cos^2 \Delta\, [1 + 2 \cos^2(a - A)] \right\} \cos^3(a - A). \tag{8}$$

Ciò posto, se facciamo $a = A$ in (5) (6) (7) ed (8) avremo

$$\left| f \frac{d\delta}{d\xi} \right|_0 = 0, \quad \left| f^2 \frac{d^2\delta}{d\xi^2} \right|_0 = - \mathrm{tg}\, \Delta \cos^2(\Delta - D), \quad \left| f^3 \frac{d^3\delta}{d\xi^3} \right|_0 = 0, \quad \left| f^4 \frac{d^4\delta}{d\xi^4} \right|_0 = \frac{3\, \mathrm{tg}\, \Delta\, (1 + 2 \cos^2 \Delta)}{\cos^2 \Delta} \cos^4(\Delta - D),$$

e la serie di Taylor ci darà:

$$\delta = \Delta - \frac{1}{2f^2} \mathrm{tg}\, \Delta \cos^2(\Delta - D) \xi^2 + \frac{1}{8f^4} \frac{\mathrm{tg}\, \Delta\, (1 + 2 \cos^2 \Delta)}{\cos^2 \Delta} \cos^4(\Delta - D)\, \xi^4. \tag{9}$$

È facile dimostrare che questa serie equivale alla celebre serie di Lagrange:

$$\delta = \Delta - \sin 2\, \Delta\, \mathrm{tg}^2 \tfrac{1}{2} (a - A) + \tfrac{1}{2} \sin 4\, \Delta\, \mathrm{tg}^4 \tfrac{1}{2} (a - A) - \cdots\cdots$$

La (**9**) ha tuttavia sulla serie di Lagrange il vantaggio di non far dipendere il calcolo delle δ da quello delle a, semplificazione molto apprezzabile nel nostro caso.

Le formule (**4**) e (**9**) ci mettono in grado di calcolare i nostri Prontuarî *per orizzontali*, vale a dire: dai punti dell'asse η, aventi le ordinate successive:

$$\eta = -13, \; -12, \; -11 \; \ldots\ldots \; -2, \; -1, \quad 0, \quad +1, \; +2 \; \ldots\ldots \; +11, \; +12, \; +13$$

passare ai punti di eguale η, ma successivamente di ascissa:

$$\xi = 1 \quad 2 \quad 3 \quad 4 \; \ldots\ldots \; 13.$$

Ascisse negative non si considerano, essendo ovvio che, passando da ξ a $-\xi$, la δ resta immutata ed $a - A$ cambia solo di segno, conservando lo stesso valore assoluto.

Ma invece che per orizzontali possiamo anche procedere *per verticali*, cominciando dal calcolare i punti dell'asse delle ξ rispondenti alle ascisse:

$$\xi = 0 \quad 1 \quad 2 \quad 3 \; \ldots\ldots \; 13$$

e da ognuno di questi, con la ascissa immutata, passando ai punti

$$\eta = \pm 1 \quad \pm 2 \quad \pm 3 \; \ldots\ldots \; \pm 13.$$

3) Per avere le formule occorrenti in questo calcolo bisogna che le differenziazioni si ripetano rispetto ad η. Si ha:

$$f\frac{da}{d\eta} = \frac{1}{2} \sin D \frac{\cos(\Delta - D)}{\cos \Delta} \sin 2(a - A) \tag{10}$$

$$f^2 \frac{d^2a}{d\eta^2} = \sin^2 D \frac{\cos^2(\Delta - D)}{\cos^2 \Delta} \cos^2(a - A) \sin 2(a - A) \tag{11}$$

$$f^3 \frac{d^3a}{d\eta^3} = \sin^3 D \frac{\cos^3(\Delta - D)}{\cos^3 \Delta} \cos^2(a - A) \left[4 \cos^2(a - A) - 1\right] \sin 2(a - A) \tag{12}$$

$$f^4 \frac{d^4a}{d\eta^4} = 6 \sin^4 D \frac{\cos^4(\Delta - D)}{\cos^4 \Delta} \cos^4(a - A) \sin 4(a - A). \tag{13}$$

Onde, integrando con la serie di Taylor le variazioni di a a partire dall'asse delle ascisse, per il quale è $\Delta = D$, si ha:

$$\left.\begin{aligned} a - A = (a - A)_0 &+ \frac{1}{2f} \operatorname{tg} D \sin 2(a - A)_0 \, \eta + \frac{1}{2f^2} \operatorname{tg}^2 D \cos^2(a - A)_0 \sin 2(a - A)_0 \, \eta^2 \\ &+ \frac{1}{2f^3} \operatorname{tg}^3 D \cos^2(a - A)_0 \left[1 - \frac{4}{3} \sin^2(a - A)_0\right] \sin 2(a - A)_0 \, \eta^3 \\ &+ \frac{1}{2f^4} \operatorname{tg}^4 D \cos^4(a - A)_0 \left[1 - 2 \sin^2(a - A)_0\right] \sin 2(a - A)_0 \, \eta^4 \end{aligned}\right\} \tag{14}$$

Attesa la grandezza di f^3 e f^4 i due ultimi termini di questa serie potrebbero scriversi più semplicemente:

$$\frac{\operatorname{tg}^3 D}{f^3} \sin(a - A)_0 \, \eta^3 + \frac{\operatorname{tg}^4 D}{f^4} \sin(a - A)_0 \, \eta^4.$$

Ma la serie stessa è certamente da posporre, per il calcolo effettivo delle a, alla (4) che ha due soli termini.

4) Passando alle declinazioni, troviamo:

$$f\frac{d\delta}{d\eta} = \frac{\cos^2(\Delta - D) - \sin D \sin \;\cos(\Delta - D) \sin^2(a - A)}{1 - \sin^2 \Delta \sin^2(a - A)} \cos(a - A) \tag{15}$$

ove l'espressione che moltiplica $\cos(a - A)$ si riduce ad 1 per $\Delta = D$. E quindi, nell'asse delle ξ si ha:

$$\left| f\frac{d\delta}{d\eta} \right|_0 = \cos(a - A)_0. \tag{16}$$

Per evitare, nelle ulteriori differenziazioni, espressioni troppo complicate, escludiamo dalla (15) i termini dal 4° ordine in su, scrivendo:

$$f\frac{d\delta}{d\eta} = \cos(a - A) \left\{ \cos^2(\Delta - D) + p \sin^2(a - A) \right\} \tag{17}$$

dove

$$p = \sin^2 \Delta - \sin \Delta \sin D \cos(\Delta - D),$$

valore che si annulla per $\Delta = D$.

Differenziando la (17) si ottiene:

$$f^2\frac{d^2\delta}{d\eta^2} = -2\sin(\Delta - D)\cos^3(\Delta - D)\cos(\alpha - A)$$

$$+\left\{\cos^2(\Delta - D)\left[\sin 2\Delta - \sin D\cos(2\Delta - D)\right] + \sin D\frac{\cos(\Delta - D)}{\cos\Delta}\left[2p - \cos^2(\Delta - D)\right]\right\}\sin^2(\alpha - A) \qquad (18)$$

la quale espressione per $\Delta = D$ diventa:

$$\left|f^2\frac{d^2\delta}{d\eta^2}\right|_0 = -\operatorname{tg} D\sin^2 D\sin^2(\alpha - A)_0. \qquad (19)$$

Finalmente, del 3° differenziale basta considerare il termine di ordine zero:

$$f^3\frac{d^3\delta}{d\eta^3} = -2\cos^4(\Delta - D)\cos(\alpha - A) \qquad (20)$$

che può, anzi, ritenersi costante sopra tutta l'estensione di qualsiasi lastra delle qui considerate, onde poniamo:

$$\left|f^3\frac{d^3\delta}{d\eta^3}\right|_0 = -2. \qquad (21)$$

In base alle equazioni (16) (19) e (21) scriveremo la seguente serie di Taylor:

$$\delta = \delta_0 + \frac{1}{f}\cos(\alpha - A)_0\,\eta - \frac{1}{2f^2}\operatorname{tg} D\sin^2 D\sin^2(\alpha - A)_0\,\eta^2 - \frac{1}{3f^3}\eta^3 \qquad \textbf{(22)}$$

la quale non è certo da anteporre alla (**9**), per il calcolo di δ, ma può darci un buon controllo dove lo riteniamo necessario, e sopra tutto può servirci a calcolare le Δ ossiano le δ nei punti $\pm 1\ \pm 2\ \pm 3\ \ldots\ldots \pm 13$ dell'asse η. In tal caso svanisce nella (22) il termine in η^2, e δ_0 diventa $= D$, onde la formula diventa:

$$\Delta = D + \frac{\eta}{f} - \frac{\eta^3}{3f^3} \qquad (23)$$

preferibile alla fondamentale $\operatorname{tg}(\Delta - D) = \frac{\eta}{f}$ della quale rappresenta lo sviluppo in serie assai convergente.

5) Per completare le nostre formule differenziali ne aggiungeremo ancora un'ultima della quale ci è bisogno per l'uso pratico dei nostri Prontuarî, servendo essa nelle interpolazioni delle α.

Essa si ottiene differenziando la (1) rispetto ad η oppure la (10) rispetto a ξ. Per l'una e per l'altra via si arriva al risultato:

$$f^2\frac{d^2\alpha}{d\eta\,d\xi} = \sin D\frac{\cos^2(\Delta - D)}{\cos^2\Delta}\cos 2(\alpha - A)\cos^2(\alpha - A)$$

che, trascurando termini del 2° ordine che nulla dànno di sensibile quando divisi per f^2, si può molto più semplicemente scrivere:

$$\frac{d^2\alpha}{d\eta\,d\xi} = \frac{1}{f^2}\frac{\sin D}{\cos^2\Delta}\ . \qquad \textbf{(24)}$$

C. – Messa in numeri delle soprascritte formule.

6. Per dare alle formule (**4**), (**9**) e (**22**) l'espressione più adatta al calcolo numerico nelle diverse Zone del Catalogo vaticano, bisogna tener presente che f è, in millimetri, eguale al raggio del circolo in minuti, e quindi, in unità di divisione del reticolo (5^{mm}) è $\log f = 2.837304$.

Con ciò la (**4**) è da scrivere per tutte le Zone

$$\alpha - A = 20^s\frac{\cos(\Delta - D)}{\cos\Delta}\,\xi - [5.14930 - 10]\,\frac{\cos^3(\Delta - D)}{\cos^3\Delta}\,\xi^3 \qquad \textbf{(25)}$$

dove il secondo coefficiente è logaritmico e la formula dà $\alpha - A$ in secondi di tempo.

Il secondo termine può scriversi in funzione del primo:

$$-[1.2462-10]\left[20\,\frac{\cos(\Delta-D)}{\cos\Delta}\,\xi\right]^3$$

ed essere come tale tabulato secondo l'argomento: 1° termine. In tal modo il suo calcolo è reso possibile *a vista.*

Diamo qui la tavola in parola fatta esattamente sul modello della Tav. II (colonna q). Ma qui, invece di due soli decimali di secondo di tempo ne figurano 3, affinchè nei Prontuarî possa venire assicurato il centesimo dei detti secondi.

Tavola III. Secondo termine di $(a-A)$
(argomento = I termine).

I	II term.	Diff.	I	II term.	Diff.	I	II term.	Diff.	I	II term.	Diff.
m s	s		m s	s		m s	s		m s	s	
1 0	0.000		**4 0**	0.024		**7 0**	0.131		**10 0**	0.381	
10	0.001	1	**10**	0.028	4	**10**	0.140	9	**10**	0.400	19
20	0.001	0	**20**	0.031	3	**20**	0.150	10	**20**	0.420	20
30	0.001	0	**30**	0.035	4	**30**	0.161	11	**30**	0.441	21
40	0.002	1	**40**	0.039	4	**40**	0.172	11	**40**	0.462	21
50	0.002	0	**50**	0.043	4	**50**	0.183	11	**50**	0.484	22
2 0	0.003	1	**5 0**	0.048	5	**8 0**	0.195	12	**11 0**	0.507	23
10	0.004	1	**10**	0.053	5	**10**	0.207	12			
20	0.005	1	**20**	0.058	5	**20**	0.220	13			
30	0.006	1	**30**	0.063	5	**30**	0.234	14			
40	0.007	1	**40**	0.069	6	**40**	0.248	14			
50	0.009	2	**50**	0.076	7	**50**	0.262	14			
3 0	0.010	1	**6 0**	0.082	6	**9 0**	0.278	16			
10	0.012	2	**10**	0.089	7	**10**	0.293	15			
20	0.014	2	**20**	0.097	8	**20**	0.310	17			
30	0.016	2	**30**	0.105	8	**30**	0.326	16			
40	0.019	3	**40**	0.113	8	**40**	0.344	18			
50	0.021	2	**50**	0.122	9	**50**	0.362	18			
4 0	0.024	3	**7 0**	0.131	9	**10 0**	0.381	19			

7. La formula (**9**) in coefficienti logaritmici si scrive:

$$\delta=\Delta-[9.33879-10]\ \mathrm{tg}\,\Delta\cos^2(\Delta-D)\ \xi^2+[3.06-10]\ \mathrm{tg}\,D\sec^2 D\,(1+2\cos^2 D)\ \xi^4 \qquad (\mathbf{26})$$

nell'ultimo termine della quale espressione il piccolissimo fattore numerico ha permesso di sopprimere il fattore $\cos^4(\Delta-D)$ e sostituire la costante D alla variabile Δ. Ecco i valori dell'ultimo termine nelle diverse Zone:

Tavola IV. Ultimo termine di δ.

$\xi=$	**7**	**8**	**9**	**10**	**11**	**12**	**13**
	″	″	″	″	″	″	″
Zona + **64°**	0 00	0.01	0.01	0.01	0.03	0.04	0.06
63	0.00	0.00	0.01	0.01	0.03	0.03	0.04
62	0.00	0.00	0.01	0.01	0.02	0.03	0.04
61	0.00	0.00	0.01	0.01	0.02	0.03	0.04
60	0.00	0.00	0.01	0.01	0.01	0.03	0.03
59	0.00	0.00	0.00	0.01	0.01	0.02	0.03
58	0.00	0.00	0.00	0.01	0.01	0.02	0.03
57	0.00	0.00	0.00	0.01	0.01	0.02	0.03
56	0.00	0.00	0.00	0.01	0.01	0.02	0.03
+ **55**	0.00	0.00	0.00	0.01	0.01	0.02	0.02

Di esso termine non si è mancato di tener conto nel calcolo dei nostri Prontuarî, ove i centesimi d secondo delle Declinazioni furono ritenuti per poter garantire i decimi. Nel calcolo del primo termine furono utilissime le tavole di moltiplicazione del Peters, per eseguire il prodotto di $[9.33879 - 10]\ \mathrm{tg}\, \Delta \cos^2 (\Delta - D)$ per ξ^2 a 4 decimali.

8. La seconda formula per le declinazioni, ossia la (**22**), prende nelle diverse Zone vaticane le seguenti espressioni:

Zona					
$+64°$	$\delta - \delta_0 = 300''\cos(\alpha - A)_0\ \eta$ —	0.″361	$\sin^2 (\alpha - A)_0 \eta^2$ —	$0.''00021\ \eta^3$	
63	»	0. 340	»	»	
62	»	0. 320	»	»	
61	»	0. 301	»	»	
60	»	0. 283	»	»	(**27**)
59	»	0. 267	»	»	
58	»	0. 251	»	»	
57	»	0· 236	»	»	
56	»	0. 222	»	»	
+55°	»	0. 209	»	»	

Queste formule mostrano che in una data colonna dei Prontuarî la differenza fra due declinazioni contigue non può teoricamente mai arrivare a 300″, fatta eccezione della prima colonna, o colonna dei Δ, per la quale è $\cos(\alpha - A)_0 = 1$. Tuttavia la differenza 300″ può qua e là figurare anche in altre colonne, in conseguenza dei piccoli errori di arrotondamento dei decimi di secondo d'arco. Mai però dovrebbe presentarsi una differenza di 300.″1 e molto meno di 300.″2, come accadrebbe quando i Prontuarî si calcolassero secondo le formule fondamentali, impiegandovi logaritmi a 6 decimali.

Le (**27**) dànno immediatamente per tutte le Zone la colonna dei Δ mercè la relazione:

$$\Delta - D = 300''\ \eta - 0.''00021\ \eta^3. \tag{28}$$

La prima colonna delle Declinazioni è quindi la stessa in tutte le Zone per quanto riguarda i minuti ed i secondi e frazioni. Solo i gradi variano.

I Prontuarî sono stati dunque calcolati mediante le formule (**25**), (**26**) e (**28**).

9. Per l'uso dei Prontuarî occorre tener presenti anche le espressioni numeriche dei coefficienti differenziali $\frac{\delta^2 \alpha}{d\xi d\eta}$ e $\frac{1}{2}\frac{d^2\delta}{d\xi^2}$.

a) Ora la formula (**24**) ci dà in secondi di tempo:

$$\frac{d^2\alpha}{d\xi d\eta} = \frac{1}{f^2}\frac{\sin D}{\cos^2 \Delta} = [8.4637 - 10]\frac{\sin D}{\cos^2 \Delta}.$$

Sostituendo per D le declinazioni centrali delle diverse Zone vaticane e per Δ le coppie di valori massimo e minimo che Δ può ricevere in ciascuna Zona, ossia $D \pm 1° 5'$, troviamo che il coefficiente $\frac{d^2\alpha}{d\xi d\eta}$ ha le seguenti escursioni:

Zona							
$+64°$	da	$+0.^s126$	a	$+0.^s147$	valore medio	$= +0.^s14$	
63	»	0. 117	»	0. 136	» »	0. 13	
62	»	0. 109	»	0. 126	» »	0. 12	
61	»	0. 101	»	0. 116	» »	0. 11	
60	»	0. 094	»	0. 108	» »	0. 10	
59	»	0. 088	»	0. 100	» »	0. 09	(29)
58	»	0. 083	»	0. 093	» »	0. 09	
57	»	0. 078	»	0. 087	» »	0. 08	
56	»	0. 073	»	0. 082	» »	0. 08	
+55°	»	+0. 069	»	+0. 077	» »	+0. 07	

Potendosi, entro i limiti della prefissaci esattezza, ritener trascurabili uno o due centesimi di secondo di tempo, vogliamo assumere come costante in ogni Zona il coefficiente differenziale $\frac{d^2\alpha}{d\xi d\eta}$ ed attribuirgli nelle successive Zone i valori registrati nell'ultima colonna del quadro ora scritto.

b) Finalmente l'espressione numerica di $\frac{1}{2}\frac{d^2\delta}{d\xi^2}$ è in secondi d'arco (vedi formula (6) limitata al termine d'ordine zero):

$$\frac{1}{2}\frac{d^2\delta}{d\xi^2} = -\frac{1}{2f^2}\operatorname{tg}\Delta = [9.3388_n - 10]\operatorname{tg}\Delta.$$

Le escursioni di questo valore nelle diverse Zone sono:

Zona	da		a		valore medio		
+64°	da	—0″.43	a	—0″.47	valore	medio	= —0″.4
63	»	0. 41	»	0. 45	»	»	0. 4
62	»	0. 39	»	0. 43	»	»	0. 4
61	»	0. 38	»	0. 41	»	»	0. 4
60	»	0. 36	»	0. 40	»	»	0. 4
59	»	0. 35	»	0. 38	»	»	0. 4
58	»	0. 33	»	0. 36	»	»	0. 3
57	»	0. 32	»	0. 35	»	»	0. 3
56	»	0. 31	»	0. 34	»	»	0. 3
+55°	»	—0. 30	»	—0. 33	»	»	—0. 3

(30)

E quindi, per ragione analoga alla dianzi esposta per le AR., possiamo dare al coefficiente $\frac{1}{2}\frac{d^2\delta}{d\xi^2}$ un valore costante per ciascuna Zona, giusta l'ultima colonna del precedente elenco.

D. – Formule d'Interpolazione.

10. I nostri Prontuarî sono tavole a doppia entrata, e le interpolazioni vi si fanno in base alla formula generale, limitata al secondo ordine:

$$\phi(\xi\,\eta) = \phi(\xi_0\,\eta_0) + \frac{d\phi}{d\xi}\Delta\xi + \frac{d\phi}{d\eta}\Delta\eta + \frac{1}{1.2}\left\{\frac{d^2\phi}{d\xi^2}\Delta\xi^2 + 2\,\frac{d^2\phi}{d\xi\,d\eta}\Delta\xi\,\Delta\eta + \frac{d^2\phi}{d\eta^2}\Delta\eta^2\right\}.$$

Questa formula nel nostro caso particolare si semplifica, non tutti i termini di secondo grado dando contributi sensibili quando ξ_0 ed η_0 siano abbastanza vicine alle coordinate ξ ed η proposte. Se questa vicinanza è tale che $\Delta\xi$ e $\Delta\eta$ siano entrambe < 1, si ha con sufficiente esattezza, con $(\alpha - A)_0$ e δ_0 indicando i valori tabulari d'entrata in Prontuario:

$$\alpha - A = (\alpha - A)_0 + \frac{d\alpha}{d\xi}\Delta\xi + \frac{d\alpha}{d\eta}\Delta\eta + a\,\Delta\xi\,\Delta\eta$$

$$\delta = \delta_0 + \frac{d\delta}{d\xi}\Delta\xi + \frac{d\delta}{d\eta}\Delta\eta + d\,\Delta\xi^2$$

dove a e d hanno per le diverse Zone i valori delle ultime colonne dei quadri (29) e (30).

11. I quattro coefficienti differenziali che figurano nelle ora scritte formule s'intendono riferiti agli stessi punti tabulari per cui valgono le coordinate $(\alpha - A)_0$ e δ_0. Attesa la lenta variazione orizzontale di $\frac{d\alpha}{d\xi}$ e verticale di $\frac{d\alpha}{d\eta}$ e $\frac{d\delta}{d\eta}$, si possono per essi sostituire senza errore sensibile le differenze orizzontali e verticali dei Prontuarî AR., nonchè le differenze verticali dei Prontuarî di Decl.: ma il coefficiente $\frac{d\delta}{d\xi}$ variando piuttosto rapidamente, occorrerebbe prendere per esso la media aritmetica delle due differenze

orizzontali, precedente e seguente il punto d'entrata nei Prontuarî di Decl. Ora, se nella seconda formula esprimiamo $\frac{d\delta}{d\xi}$ mediante le differenze tabulari orizzontali, prima e seconda, *seguenti* il valore d'entrata nei detti Prontuarî, poniamo cioè $\frac{d\delta}{d\xi}=f'-\frac{1}{2}f''$, e consideriamo che $d=\frac{1}{2}\frac{d^2\delta}{d\xi^2}=\frac{1}{2}f''$, la formula per le declinazioni diventa:

$$\delta=\delta_0+\frac{d\delta}{d\eta}\Delta\eta+(f'-\frac{1}{2}f'')\Delta\xi+\frac{1}{2}f''\Delta\xi^2$$
$$=\delta_0+\frac{d\delta}{d\eta}\Delta\eta+f'\Delta\xi+\frac{1}{2}f''\Delta\xi(\Delta\xi-1)$$
$$=\delta_0+\frac{d\delta}{d\eta}\Delta\eta+f'\Delta\xi+d\Delta\xi(\Delta\xi-1).$$

Inoltre è da osservare che la differenza tabulare verticale $\frac{d\delta}{d\eta}$ non ha nelle nostre Zone altri valori possibili, oltre 300″, che 299″.9 299.8 299.7 299.6 tutti vicinissimi al minore 299.6. Ciò suggerisce di porre $\frac{d\delta}{d\eta}=299''.6+c$, con che la formula precedente diviene:

$$\delta=\delta_0+f'\Delta\xi+299''.6\,\Delta\eta+\mu$$

dove è stato posto:

$$\mu=c\Delta\eta+d\Delta\xi(\Delta\xi-1).$$

Il quadro (30) ci autorizza a prendere per tutte le Zone vaticane $d=-0''.35$, onde il secondo termine di μ, variando $\Delta\xi$ da 0 ad 1, varia entro 0″.0 e +0″.1. Se adottiamo di questi estremi il medio +0″.05 come costante, la formula per μ potrà scriversi più semplicemente:

$$\mu=c\Delta\eta+0''.05$$

ed i valori da essa calcolati saranno attinti alla seguente tabellina:

μ (unità = 0″.1)

$\Delta\eta=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c=0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

(31)

12. Come si vede, con l'introdurre in luogo di $\frac{d\delta}{d\xi}$ la differenza tabulare che *segue* il punto di entrata nel Prontuario di declinazione, abbiamo reso pressochè trascurabile l'effetto del termine di secondo ordine nelle Declinazioni stesse. * Altrettanto non sarebbe stato possibile nelle interpolazioni delle AR., poichè ivi il termine di secondo ordine dipende da entrambi gli argomenti $\Delta\xi$ e $\Delta\eta$: e se avessimo iscritto nei Prontuarî AR., invece delle differenze dirette dei valori tabulari, le loro medie aritmetiche, ottenute combinando successivamente due a due in senso verticale le differenze orizzontali ed in senso orizzontale le differenze verticali, sarebbero sempre rimasti scoperti errori toccanti *in maximo* la metà degli importi dell'ultima

* Sulla liceità dell'attribuire, nelle interpolazioni in δ, un importo costante (0″.05) al termine di 2° ordine, senza commettere errori che arrivino a 0″.1 (limite dell'esattezza prefissaci): come pure sull'opportunità di fissare a 299″.6 (anzichè a 300″) la parte costante delle differenze verticali, per aver $c\Delta\eta$ e quindi μ sempre positivo, fu richiamata la mia attenzione dal ch.º Collega Prof. G. Zappa, cui mi professo obbligato anche per i consigli datimi circa il modo come conformare l'impressione dei Prontuarî alle esigenze della più progredita tecnica tabellare.

colonna della tabella (29). Per Zone più australi delle vaticane il processo sarebbe perfettamente giustificabile ed opportuno, ma noi non abbiamo stimato prezzo dell'opera l'alterazione delle differenze tabulari, dal momento che una correzione non disprezzabile sarebbe stata da apportare ai risultati della prima interpolazione. Il termine di secondo ordine è stato quindi calcolato per intero secondo la formula:

$$\lambda = a\, \Delta\xi\, \Delta\eta$$

e consegnato in una tabellina che accompagna ognuno dei Prontuarî AR. La tabellina dà *a vista*, senza bisogno cioè di interpolazione, λ in centesimi di secondo di tempo, e gli argomenti di entrata, fra loro permutabili, sono le prime cifre (arrotondate) di $\Delta\xi$ e $\Delta\eta$.

E. - Norme pratiche per il computista e spiegazione delle Tavole 1-17, Parte III.

13. Per facilitare al computista l'uso dei Prontuarî è bene evitare argomenti negativi. All'argomento η che può variare da -13 a $+13$ è stato, perciò, sostituito l'argomento $\eta' = 13 + \eta$ che è sempre positivo e varia da 0 a 26. In quanto all'argomento ξ che va anch'esso da -13 a $+13$, i Prontuarî non ne considerano che i soli valori positivi, per la ragione che il cambiamento di segno di ξ ha soltanto per effetto di mutare il segno di $\alpha - A$, e lascia δ immutato.

Il computista deve quindi porsi bene in mente che al segno di ξ si bada solo *in ultimo* per decidere sul segno di $\alpha - A$, ed al segno di η solo *in principio* per formare η'. In tutto il resto del calcolo ξ è da considerare positivo, come è positivo sempre η'.

14. Ciò posto sarà regola costante del computista di scegliere per punti di entrata in Prontuario sempre quelli le cui coordinate (intere) $\xi_0\ \eta'_0$ siano *immediatamente inferiori* agli argomenti dati ξ ed η'. Se per esempio fossero proposti gli argomenti $\xi = 7.999$ $\eta = -3.001$, dal quale ultimo si trae $\eta' = 9.999$, il punto d'entrata sarebbe $\xi_0 = 7$ $\eta'_0 = 9$ senza che il computista avesse a preoccuparsi dell'essere il punto $\xi_0 = 8$ $\eta'_0 = 10$ il più vicino al dato, fra i punti tabulari.

Questa uniformità di procedimento è *essenziale* per la speditezza e sicurezza delle operazioni.

15. Per il computista le quantità $\Delta\xi$ e $\Delta\eta'$ saranno sempre *frazioni positive* (a tre decimali) e la loro definizione sarà:

$\Delta\xi = \xi$ dato $- \xi$ tabulare immediatamente inferiore.

$\Delta\eta' = \eta'$ » $- \eta'$ » » »

Fissata questa regola, il modo di eseguire le interpolazioni si riassume nelle due formule pratiche:

a) **Prontuarî delle AR.**

$$\alpha - A = \text{Valore d'entrata} + \text{differenza tabulare orizzontale} \times \Delta\xi$$
$$+ \text{differenza tabulare verticale} \times \Delta\eta' + \lambda,$$

tutti termini positivi. Alla loro somma si darà il segno negativo, in ultimo, se ξ è negativo.

b) **Prontuarî delle Decl.**

$$\delta = \text{Valore d'entrata} + 299.''6\ \Delta\eta' + \mu - \text{differenza orizzontale} \times \Delta\xi.$$

I primi tre termini sempre *positivi*, l'ultimo sempre *negativo*. Le differenze sono da intendere in *valore assoluto*, cioè come iscritte nei Prontuarî.

Il termine λ si attinge alla tabellina che accompagna ciascuno dei Prontuarî delle AR. Il termine μ si trova nella tabellina (31) riprodotta in calce a ciascuno dei Prontuarî di Declinazione. Ripetiamo che c è, ivi, l'eccesso della differenza tabulare verticale su $299''.6$. Esso è segnato in luogo della detta differenza con le piccole cifre 0, 1, 2, 3 e 4.

16. Per meglio dichiarare le ora date regole e completarle con altre pratiche indicazioni, è bene recar qui un **esempio** concreto.

a) Nella Zona $+64°$ siano da convertire in coordinate sferiche le coordinate rettilinee

$$\xi = 9.572, \qquad \eta = -5.827.$$

Formo $\eta' = 13 - 5.827 = 7.173$, ed entro nel Prontuario AR. $+64°$ con gli argomenti $\xi_0 = 9$, $\eta'_0 = 7$; trovo:

$$6^m\ 43^s.28 \qquad 44^s.77$$
$$1^s.19$$

trascrivendo, oltre il valore d'entrata, anche la differenza orizzontale *a destra* e la differenza verticale *sottostante*. Inoltre, nel mio caso, essendo $\Delta\xi = 0.572$, $\Delta\eta' = 0.173$, la tabellina λ (in cui entro con gli argomenti arrotondati $\Delta\xi = 0.6$, $\Delta\eta' = 0.2$) mi dà, a vista, $\lambda = 0^s.02$. Perciò il calcolo da fare è semplicemente:

$$6^m\ 43^s.28 + 44^s.77 \times 0.572 + 1^s.19 \times 0.173 + 0^s.02.$$

Il computista che deve ripetere questo calcolo per un numero stragrande di stelle, farà bene a risparmiarsi la fatica delle due moltiplicazioni servendosi delle Tavole **1-15** e **17** che abbiamo aggiunto per suo comodo in fine di volume. Le prime dànno i prodotti dei numeri 33, 34, 35 ..... 47 per ciascuna frazione a tre decimali, da 0.000 a 0.999, e la **17**, i primi nove multipli dei numeri da 0 a 180. Le due moltiplicazioni del nostro esempio si eseguono con le tavole così:

tav. **12**:	$44 \times 0.572 = 25^s.168$
» **17 b**:	$0.77 \times 0.572 = 0.440$
» **17 c**:	$1.19 \times 0.173 = 0.206$
e la somma dei risultati, aggiunta a	$6^m\ 43^s.28$
ed al termine	$\lambda = 0.02$
ci dà il valore richiesto di	$a - A = 7^m\ 9^s.11.$

La differenza $a - A$ è dunque sempre una somma di cinque poste positive di cui l'ultima sempre assai piccola.

b) Entrando ora nel Prontuario delle Decl. $+64°$ sotto le stesse coordinate di partenza $\xi_0 = 9$, $\eta'_0 = 7$ troviamo:

$$63°\ 29'\ 24''.6 \qquad 8''.3$$
$$c = 3.$$

Anche qui abbiamo trascritto dal Prontuario, oltre il δ_0, la prima differenza *a destra*, nonchè il valore di $c = 3$ immediatamente *sottostante*: col quale valore di c e col secondo argomento arrotondato $\Delta\eta' = 0.2$ entrando nella tabellina μ troviamo $\mu = 0''.1$. Dopo di che il calcolo da fare, giusta la seconda delle nostre formule pratiche, sarà:

$$63°\ 29'\ 24''.6 + 299''.6 \times 0.173 + 0''.1 - 8''.3 \times 0.572.$$

Le due moltiplicazioni qui indicate, $299''.6 \times 0.173$ e $8''.3 \times 0.572$ vengono fatte, la prima mediante la tav. **16** che dà fino ai centesimi di secondo i prodotti di 299.6 per tutti i numeri da 0.001 a 0.999, e la seconda di nuovo mediante la tav. **17** che dà indifferentemente $0.83 \times 0.572 = 0.475$ in millesimi, oppure $8.3 \times 0.572 = 4.75$ in centesimi, come qui si desidera. L'operazione è dunque:

	$\delta_0 = 63°\ 29'\ 24''.6$
tav. **16 a**: $299''.6 \times 0.173 =$	51.83
$\mu =$	0.1
	$63°\ 30'\ 16''.53$
da cui sottratto, tav. **17 b**: $8.3 \times 0.572 =$	4.75
risulta	$\delta = 63°\ 30'\ 11''.8$

Acquistato in questi semplicissimi ed uniformi calcoli il necessario esercizio, il computista non dovrà impiegare più d'un paio di minuti nella conversione delle coordinate rettilinee in sferiche per ogni singola stella.

17. È forse bene spendere qualche altra parola di spiegazione intorno all'uso della tav. **17**.

La prima colonna di questa Tavola (pag. 64-67) registra i numeri dei quali può occorrere di prendere le parti proporzionali. Essi si devono intendere espressi in unità di $0^s.01$ per le AR. e di $0''.1$ per le Declinazioni. Le altre colonne dànno i multipli semplici di tali numeri e permettono quindi di ridurre ad una somma la loro moltiplicazione per qualsiasi frazione da 0.001 a 0.999. Sia p. es. da eseguire il prodotto $0^s.87 \times 0.715$. Cerco a pag. 65 la riga 87 e ne estraggo i prodotti parziali (per 7, 1 e 5) 609, 87, 435 che scrivo l'un sotto l'altro in modo che l'ultima cifra di ognuno avanzi di un posto verso destra l'ultima cifra del precedente: così

$$\begin{array}{r} 609 \\ 87 \\ 435 \\ \hline 0^s.622 \end{array}$$

Nella somma delle 3 poste trascuro le cifre oltre la terza.

Se il prodotto è invece $8''.7 \times 0.715$, l'operazione resta la medesima, ma il risultato è da interpretare $6''22$.

In queste aggiunte ai valori tabulari si prende una decimale in più (3 in α e 2 in δ) per evitare che l'interpolazione alteri il grado di precisione dei Prontuarî.

Per evitare errori è bene che il computista trascriva le differenze tabulari dai Prontuarî sempre *nella loro integrità*, cioè con 2 decimali in α ed una in δ: ed i numeri così scritti cerchi nella tav. **17**. Così per es. la differenza $1^s.60$ non si abbrevî in $1^s.6$, affine di tener presente che le parti proporzionali di essa sono da cercare nel rigo 160 di pag. 67 e non nel rigo 16 di pag. 64. Similmente, incontrando, nelle Declinazioni, da dover eseguire un prodotto come $1''.3 \times 0.94$ il computista entrerà nella tav. **17** con l'argomento 13 e non con 130.

18. È da avvertire il computista che nei Prontuarî delle Ascensioni rette sono omesse le due colonne $\xi = 0$ e $\xi = 13$, della quale abbreviazione egli si renderà conto considerando i due punti seguenti:

a) Nella colonna $\xi = 0$ sarebbero figurati tutti valori nulli, la quantità $\alpha - A$ essendo costantemente $= 0$ lungo tutto l'asse η. Inoltre la colonna delle differenze sarebbe stata una ripetizione di quella adiacente che dà i valori di $\alpha - A$ per $\xi = 1$. La regola quindi da seguire quando si han da calcolare Ascensioni Rette per valori di $\xi < 1$ si è di prendere:

Valore d'entrata $= 0$,

differenza tabulare orizzontale $= \left\{ \begin{array}{l} \text{valore della 1}^{\text{a}} \text{ colonna sotto } \xi = 1, \\ \text{rispondente all'} \eta' \text{ di partenza,} \end{array} \right.$

differenza tabulare verticale $= 0$.

Più brevemente espressa, la regola è: « Moltiplicare il dato della prima colonna sotto $\xi = 1$ per $\Delta\xi$ ed aggiungere λ al prodotto ». Anche qui un esempio può esser utile. Supponiamo nella Zona $+63°$ di dover calcolare $\alpha - A$ per $\xi = 0.729$ $\eta' = 19.882$. Nella prima colonna della rubrica $\xi = 1$ ed a destra di $\eta' = 19$ trovo $44^s.82$. Con gli argomenti abbreviati $\Delta\xi = 0.7$ $\Delta\eta' = 0.9$ entro nella tabellina λ che mi dà $\lambda = +0^s.08$. La richiesta Ascens. Retta è dunque:

$$\alpha - A = 44^s.82 \times 0.729 + 0^s.08 = 32^s.75.$$

b) Il valore di $\xi = 13.000$ non si presenterà mai in pratica, o solo in casi rarissimi. Verificandosi uno di questi ultimi, il computista parta dal valore della rubrica $\xi = 12$ facendo $\Delta\xi = 1.000$ e non commetterà errore sensibile. Esempio: Zona $+64°$, $\xi = 13.000$ $\eta' = 25.422$. La colonna $\xi = 12$ per $\eta' = 25$ mi dà

$$\begin{array}{ll} 9^m\ 27^s.47 & 47.^s24 \\ 1.76 & \end{array}$$

e la tabellina λ, per $\Delta\xi = 1.0$ $\Delta\eta' = 0.4$ mi dà $\lambda = +0^s.06$. Il calcolo è dunque:

$$\alpha - A = 9^m\ 27^s.47 + 47^s24 + 1^s.76 \times 0.422 + 0^s.06 = 10^m\ 15^s.51.$$

19. I Prontuarî di Declinazione registrano i numeri dei gradi e dei minuti primi solo nelle colonne terminali di ciascuna pagina, vale a dire nelle colonne $\xi = 0$ $\xi = 6$ $\xi = 7$ $\xi = 13$, mentre le colonne intermedie abbreviano i loro dati ai soli secondi e frazioni. Il computista attingerà quindi i gradi ed i minuti nel punto d'incontro della orizzontale che sta considerando, con la prima o con l'ultima colonna della pagina, indifferentemente, facendo tuttavia attenzione agli asterischi che nelle seconde pagine di parecchie zone segnano in ogni orizzontale il punto in cui il minuto primo, dato nella colonna $\xi = 7$, più non vige, e bisogna attingerlo nella colonna $\xi = 13$.

F. - Sul grado d'esattezza dei Prontuarî.

20. I nostri Prontuarî dànno con due decimali le AR. e con una decimale le Decl. dei punti tabulari: le tavole di moltiplicazione permettono di prendere con tre e rispettivamente con due decimali le aggiunte da fare ai valori tabulari per passare da essi a quelli delle singole stelle. Tale interpolazione, quindi, in tanto può alterare l'esattezza propria dei valori tabulari, in quanto i termini di secondo ordine sono anch'essi dati a due decimali per le AR. (termine λ) e con un solo per le Decl. (termine μ).

Se dunque l'error massimo temibile nelle AR. tabulari è di $0^s.005$, ed altrettanto è l'error massimo della tabellina λ, l'error massimo da aspettarsi in una AR. interpolata sarà $0^s.01$; analogamente se $0''.05$ è in qualche raro caso l'errore di una Decl. tabulare, e cospiri con esso un errore egualmente grande nel μ, sarà $0''.1$ l'errore della Decl. interpolata. Nella maggior parte dei casi dobbiamo quindi ritenere che gli errori insiti nell'impiego dei presenti Prontuarî non arrivino a $0^s_0 1$ nelle AR., nè a $0''.1$ nelle Declinazioni.

I Prontuarî permettono quindi di raggiungere nella conversione delle coordinate rettilinee in sferiche, con pochissima fatica, quello stesso grado di esattezza che si otterrebbe con le formule rigorose di pag. V impiegandovi tavole logaritmiche a 6 decimali. *

Tale grado di esattezza appare più che sufficiente nella elaborazione del materiale astrografico fin qui raccolto.

G. - Sulla conversione delle coordinate sferiche in rettilinee.

21. In quelle stazioni astrografiche – e crediamo siano la maggioranza – nelle quali la conversione delle coordinate rettilinee in sferiche si fa mediante Tavole non dispensanti dall'uso dei logaritmi e non offrenti perciò troppa garanzia che i computisti ordinarî possano servirsene con perfetta immunità da errori, si rende necessario un controllo radicale, quello di ricalcolare dagli $\alpha - A$ e $\delta - D$ ottenuti, nuovamente gli ξ ed η di partenza. Solo in tal modo chi dirige l'opera può essere sicuro che nel Catalogo astrografico non figurino false stelle. Perciò le Tavole cui alludiamo devono soddisfare al requisito essenziale del permettere di effettuare con eguale rapidità così il passaggio dalle coordinate rettilinee alle sferiche, come il passaggio inverso, entrambe le operazioni dovendo ripetersi con la stessa frequenza. Ma adottato il sistema dei Prontuarî, è tanta la semplicità e sicurezza introdotte nella prima delle operazioni in discorso, che il controllo della seconda diventa del tutto superfluo, onde non si dovrà imputare a difetto dei Prontuarî stessi, se alla seconda operazione non si mostrano adatti come alla prima.

22. Tolta di mezzo la necessità di un controllo continuo alle conversioni delle coordinate rettilinee in sferiche, non resta all'operazione inversa altra occasione d'impiego che nella determinazione delle *costanti* delle lastre, ove si comincia appunto dal calcolare le ξ e le η delle stelle di riferimento dai cogniti valori

* Ciò vuol dire che se vogliamo controllare qua e là i risultati ottenuti con i Prontuarî mediante calcolo diretto delle dette formule, a 6 decimali, dobbiamo attenderci differenze fino a $0^s.02$ in α e $0''.2$ in δ.

delle coordinate sferiche α e δ. Ma questo calcolo, anziché a dei computisti ordinarî, resterà sempre affidato ad astronomi di professione, i quali difficilmente troveranno fastidioso l'impiego delle formule fondamentali:

$$\begin{aligned} \xi &= f \cos\Delta \sec(\Delta - D) \operatorname{tg}(\alpha - A), \\ \eta &= f \operatorname{tg}(\Delta - D), \\ \operatorname{tg}\Delta &= \operatorname{tg}\delta \sec(\alpha - A), \end{aligned}$$

atteso il numero limitatissimo delle stelle di riferimento da calcolare per ciascuna lastra (10 o 15 al più).

Del resto una facilitazione grande all'impiego delle formule fondamentali viene offerta anche nel caso attuale dalle Tav. I e II di pag. VI e VII, le quali, non meno delle più elaborate in uso presso altri Osservatorii, godono la proprietà di prestarsi egualmente all'una ed all'altra trasformazione. Vogliamo di ciò recare ad esempio l'operazione inversa a quella dell'esempio di pag. VII e VIII.

In una lastra della Zona $+64^\circ$ sia proposto di determinare le coordinate rettilinee rispondenti alle coordinate sferiche

$$(\alpha - A) = +8^m\,55^s.05, \qquad \delta = +65^\circ\ 1'\ 21''.3.$$

La tav. II (pag. VII) interpolata per l'argomento $8^m\,55^s.05$ dà $q = 0.27$ $p = 329$ e le tavole logaritmiche a 6 decimali dànno $\log \operatorname{tg}\delta = 0.331774$. Si ha quindi:

$$\begin{array}{rr} \alpha - A = +8^m\ 55^s.05 & \log \operatorname{tg}\delta = 0.331774 \\ q = \qquad 0.27 & p = \qquad 329 \\ \hline Q\xi = +8\ \ 55.32 & P = 0.332103 \\ = \quad 535.32. & \end{array}$$

Con l'argomento P ora scritto entro nella tav. I (pag. VI) e trovo:

$$\begin{array}{rl} 26 + 2\eta = 50.943, & \log Q \ = 1.675648 \\ \text{onde, essendo} & \log Q\xi = 2.728613 \\ \hline \text{mi risulta} & \log \xi \ = 1.052965, \qquad \xi = +11.297. \end{array}$$

Ritrovo dunque: $\xi = +11.297$, $\eta = +12.471$ in perfetto accordo con quelli che erano stati i valori di partenza nell'esempio di pagg. VII-VIII.

23. Abbiamo detto che alla trasformazione delle coordinate sferiche in rettilinee i nostri Prontuarî non sarebbero i più adatti. Ma non crediamo inutile mostrare come essi dovrebbero in tal caso essere adoperati.

Ricorriamo allo stesso esempio precedente:

$$\text{Dati: Zona } +64^\circ \left\{ \begin{aligned} \alpha - A &= +\ 8^m\,55^s.05 \\ \delta &= +65^\circ\ \ 1'\ 21''.3. \end{aligned} \right.$$

Nel Prontuario Decl. $+64^\circ$ trovo che δ risponde ad un η' compreso fra 25 e 26. Assumo quindi:

$$\eta' = 25 + \Delta\eta'.$$

Entro, dopo ciò, in Prontuario *AR.* $+64^\circ$, scorrendone con l'occhio la linea $\eta' = 25$, nella quale trovo che $\alpha - A$ viene a restare fra le colonne $\xi = 11$ e $\xi = 12$. Pongo pertanto:

$$\xi = 11 + \Delta\xi.$$

Ora trascrivo nel solito modo dai due Prontuarî i valori rispondenti a $\xi = 11$ $\eta' = 25$ insieme alle loro differenze *seguenti* e *sottostanti*.

Prontuario AR. $+64^\circ$		Prontuario Decl. $+64^\circ$	
$8^m\,40^s.23$	$47^s.24$	$+64^\circ\ 59'\ 3''.1$	10.8
1.62		$c = 0$	

In base a questi ultimi dati ed ai precedenti, formo le equazioni:

$$+\ 8^{m}\,40^{s}.23\ +47.24\ \Delta\xi+\ 1.62\ \Delta\eta'+\lambda=+\ 8^{m}\,55^{s}.05$$
$$+64^\circ\ 59'\ 3''.1-10.8\ \ \Delta\xi+299.6\ \ \Delta\eta'+\mu=+65^\circ\ 1'\ 21''.3$$

vale a dire:

$$+47.24\ \Delta\xi+\ \ 1.62\ \Delta\eta'+\lambda=+\ 14.82$$
$$-10.8\ \ \Delta\xi+299.6\ \ \Delta\eta'+\mu=+138.2.$$

Considerando della prima equazione il solo primo termine e della seconda il solo secondo, vediamo subito che $\Delta\xi$ è circa $=0.3$ e $\Delta\eta'$ è circa $=0.5$, con i quali argomenti e con $c=0$ entrando nelle tabelline λ e μ, troviamo:

$$\lambda=+0^{s}.02 \qquad \mu=0''.0.$$

Le equazioni definitive diventano quindi:

$$+47.24\ \Delta\xi+\ \ 1.62\ \Delta\eta'=+\ 14.80$$
$$-10.8\ \ \Delta\xi+299.6\ \ \Delta\eta'=+138.2$$

e risolute, dànno: $\Delta\xi=+0.297$ $\Delta\eta'=+0.472$, da cui $\xi=+11.297$ $\eta'=+25.472$ $\eta=+12.472$.

Vi è differenza di 1 unità della 3ª decimale tra l'η qui ottenuto e quello trovato sopra, impiegando le tav. di pag. VI e VII. La differenza stessa nasce da accumulo di errori di arrotondamento, durante il processo di calcolo ora descritto.

Invece di scrivere le due equazioni e risolverle volta per volta, possiamo stabilire le formule dirette per il calcolo di $\Delta\xi$ e $\Delta\eta'$. Poniamo:

$$\Delta a=(a-A)\text{ data}-(a-A)\text{ tabulare}-\lambda$$
$$\Delta\delta=\qquad \delta\text{ data}-\qquad \delta\text{ tabulare}-\mu$$

$$a=\frac{\Delta a}{\text{differenza orizzontale nel Prontuario AR.}}$$

$$b=\frac{\Delta\delta}{299.6}$$

$$c=\frac{\text{Differenza orizzontale nel Prontuario Decl.}}{299.6}$$

$$d=\frac{\text{Differenza verticale}}{\text{Differenza orizzontale}}\Big\}\text{ nel Prontuario AR.}$$

e le espressioni richieste saranno:

$$\Delta\xi=\frac{a-bd}{1+cd},\quad \Delta\eta'=\frac{b+ac}{1+cd}.$$

Le quantità $a\ b\ c\ d$ sono tutte <1, ed il calcolo si fa comodamente con i logaritmi di addizione e sottrazione. Come prima approssimazione, bastevole al calcolo di λ e μ, si fa: $\Delta\xi=a$ $\Delta\eta'=b$.

Se la conversione delle coordinate sferiche in rettilinee fosse frequente, un gran risparmio di lavoro si otterrebbe mercè una tabella a doppia entrata, che registrasse secondo gli argomenti ξ ed η', e per ciascuna Zona, i logaritmi delle quantità:

$$L=\frac{d\xi}{da}=\frac{1}{A(1+cd)},\quad M'=\frac{d\eta'}{d\delta}=\frac{1}{299.6\,(1+cd)},\quad L'=\frac{d\eta'}{da}=cL,\quad M=\frac{d\xi}{d\delta}=-dM',$$

dove A è la differenza orizzontale nel Prontuario AR. Allora $\Delta\xi$ e $\Delta\eta'$ verrebbero dati dalle formule:

$$\Delta\xi=L\Delta a+M\Delta\delta,\qquad \Delta\eta'=L'\Delta a+M'\Delta\delta.$$

Per il nostro esempio, la tabella relativa alla Zona $+64°$, darebbe, sotto $\xi = 11 \quad \eta' = 25$:

$$\log L = 8.3252 - 10, \quad \log M = 6.0555_n - 10, \quad \log L' = 6.8615 - 10, \quad \log M' = 7.5229 - 10$$

onde si avrebbe:

$$\Delta\xi = [8.3252]14.80 - [6.0555]138.2 = +0.297$$
$$\Delta\eta' = [6.8615]14.80 + [7.5229]138.2 = +0.471,$$

da cui: $\xi = +11.297, \quad \eta' = 25.471, \quad \eta = +12.471,$

di nuovo in perfetto accordo con i dati di pag. VII.

Facile sarebbe stato arricchire i nostri Prontuarî delle Tabelle in discorso, ma abbiam tuttavia preferito ometterle, essendo di avviso che quando la conversione delle coordinate sferiche in rettilinee debba ripetersi per molte stelle, i migliori Prontuarî siano quelli che direttamente dànno ξ ed η' in funzione di α e δ, vale a dire i Prontuarî *inversi* di quelli contenuti nel presente Volume.

ERRATA E ADDENDA.

Pag. v, riga 7, da sopra. Cancellare le parole: *a vista.*

» XI, » 16, » Aggiungere: La (23) è evidentemente la serie di *arctg.*

» XV, » 14, » Invece di $d = -0''.35$ leggi $d = -0''.4$.

» XVI, » 3, da sotto. Aggiungere: Queste cifre sono abbreviazioni di 0''.0, 0''.1, 0''.2, 0''.3, 0''4.

» 24, tabellina μ: intestazione della prima colonna: invece di $\Delta\xi$ leggi $\Delta\eta'$.

NOTA. — I dieci Prontuarî di Declinazione essendo, per quel che riguarda i minuti ed i secondi, poco dissimili fra loro, ed avendo comune la tabellina μ, dei termini di secondo ordine, avrebbero potuto compendiarsi in un Prontuario unico, quello p. es., della Zona $+60^0$, nelle cui rubriche 0, 6, 7 e 13 invece dei gradi, da 58^0 a 61^0, si fossero iscritti (in colonnine a parte) i loro eccessi e su 60^0, vale a dire -2^0, -1^0, 0^0, $+1^0$, lasciando minuti e secondi come sono, ed in ogni linea, a lato delle differenze orizzontali, si fossero posti i successivi valori del coefficiente differenziale $\frac{d\delta}{dD}$. Da tale prontuario unico, la δ rispondente alle coordinate rettilinee ξ ed η', in una lastra di centro D [$D = +55^0, 56^0 \dots +64^0$] si sarebbe calcolata secondo la formula:

$$\delta = (D + e) + \text{minuti e secondi interpolati nel solito modo} + \frac{d\delta}{dD}(D - 60^0).$$

Abbiamo tuttavia ritenuto che per il computista fosse più sicuro il sistema dei Prontuarî separati, come quelli che presentano un minore ingombro di numeri, e godono di perfetta uniformità con i Prontuarî di AR.

PARTE PRIMA

PRONTUARI DELLE *AR*.

FORMULA PRATICA D'INTERPOLAZIONE:

$$\alpha - A = \text{Valore d'entrata} + \text{differenza tabulare orizzontale} \times \Delta\xi + \text{differenza tabulare verticale} \times \Delta\eta' + \lambda.$$

Prontuari delle AR: Zona +64°

η'	$\xi = 1$		$\xi = 2$		$\xi = 3$		$\xi = 4$		$\xi = 5$		$\xi = 6$		η'
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	43.92	43.92	1 27.84	43.92	2 11.76	43.91	2 55.67	43.91	3 39.58	43.91	4 23.49	43.91	0
	.13		.25		.38		.51		.64		.76		
1	44.05	44.04	1 28.09	44.05	2 12.14	44.04	2 56.18	44.04	3 40.22	44.03	4 24.25	44.03	1
	.12		.26		.38		.51		.63		.76		
2	44.17	44.18	1 28.35	44.17	2 12.52	44.17	2 56.69	44.16	3 40.85	44.16	4 25.01	44.16	2
	.13		.25		.39		.51		.64		.76		
3	44.30	44.30	1 28.60	44.31	2 12.91	44.29	2 57.20	44.29	3 41.49	44.28	4 25.77	44.30	3
	.13		.26		.38		.51		.64		.77		
4	44.43	44.43	1 28.86	44.43	2 13.29	44.42	2 57.71	44.42	3 42.13	44.41	4 26.54	44.43	4
	.13		.26		.39		.52		.65		.78		
5	44.56	44.56	1 29.12	44.56	2 13.68	44.55	2 58.23	44.55	3 42.78	44.54	4 27.32	44.55	5
	.13		.26		.39		.52		.65		.78		
6	44.69	44.69	1 29.38	44.69	2 14.07	44.68	2 58.75	44.68	3 43.43	44.67	4 28.10	44.68	6
	.13		.26		.39		.53		.66		.79		
7	44.82	44.82	1 29.64	44.82	2 14.46	44.82	2 59.28	44.81	3 44.09	44.80	4 28.89	44.81	7
	.13		.27		.40		.52		.66		.79		
8	44.95	44.96	1 29.91	44.95	2 14.86	44.94	2 59.80	44.95	3 44.75	44.93	4 29.68	44.94	8
	.14		.26		.39		.53		.66		.79		
9	45.09	45.08	1 30.17	45.08	2 15.25	45.08	3 0.33	45.08	3 45.41	45.06	4 30.47	45.08	9
	.13		.27		.41		.54		.66		.80		
10	45.22	45.22	1 30.44	45.22	2 15.66	45.21	3 0.87	45.20	3 46.07	45.20	4 31.27	45.21	10
	.13		.27		.40		.53		.67		.81		
11	45.35	45.36	1 30.71	45.35	2 16.06	45.34	3 1.40	45.34	3 46.74	45.34	4 32.08	45.34	11
	.14		.27		.40		.54		.68		.81		
12	45.49	45.49	1 30.98	45.48	2 16.46	45.48	3 1.94	45.48	3 47.42	45.47	4 32.89	45.47	12
	.13		.27		.40		.54		.68		.81		
13	45.62	45.63	1 31.25	45.61	2 16.86	45.62	3 2.48	45.62	3 48.10	45.60	4 33.70	45.61	13
	.14		.27		.41		.55		.68		.82		
14	45.76	45.76	1 31.52	45.75	2 17.27	45.76	3 3.03	45.75	3 48.78	45.74	4 34.52	45.75	14
	.14		.27		.41		.55		.69		.82		
15	45.90	45.89	1 31.79	45.89	2 17.68	45.90	3 3.58	45.89	3 49.47	45.87	4 35.34	45.89	15
	.14		.28		.42		.55		.69		.83		
16	46.04	46.03	1 32.07	46.03	2 18.10	46.03	3 4.13	46.03	3 50.16	46.01	4 36.17	46.03	16
	.13		.28		.41		.56		.69		.84		
17	46.17	46.18	1 32.35	46.16	2 18.51	46.18	3 4.69	46.16	3 50.85	46.16	4 37.01	46.16	17
	.14		.28		.42		.55		.70		.83		
18	46.31	46.32	1 32.63	46.30	2 18.93	46.31	3 5.24	46.31	3 51.55	46.29	4 37.84	46.31	18
	.14		.28		.42		.56		.70		.85		
19	46.45	46.46	1 32.91	46.44	2 19.35	46.45	3 5.80	46.45	3 52.25	46.44	4 38.69	46.43	19
	.15		.28		.43		.56		.71		.85		
20	46.60	46.59	1 33.19	46.59	2 19.78	46.58	3 6.36	46.60	3 52.96	46.58	4 39.54	46.57	20
	.14		.29		.43		.57		.71		.85		
21	46.74	46.74	1 33.48	46.73	2 20.21	46.72	3 6.93	46.74	3 53.67	46.72	4 40.39	46.72	21
	.14		.28		.43		.58		.72		.86		
22	46.88	46.88	1 33.76	46.88	2 20.64	46.87	3 7.51	46.88	3 54.39	46.86	4 41.25	46.86	22
	.15		.29		.43		.57		.72		.87		
23	47.03	47.02	1 34.05	47.02	2 21.07	47.01	3 8.08	47.03	3 55.11	47.00	4 42.11	47.01	23
	.14		.29		.43		.58		.73		.88		
24	47.17	47.17	1 34.34	47.16	2 21.50	47.16	3 8.66	47.17	3 55.83	47.15	4 42.98	47.16	24
	.15		.29		.44		.59		.73		.88		
25	47.32	47.31	1 34.63	47.31	2 21.94	47.31	3 9.25	47.31	3 56.56	47.30	4 43.86	47.30	25
	.14		.30		.44		.58		.74		.88		
26	47.46	47.47	1 34.93	47.45	2 22.38	47.45	3 9.83	47.47	3 57.30	47.44	4 44.74	47.44	26

λ (unità $0^s.01$)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	1	1	1	1	1	1	1
0.2	0	0	1	1	1	1	2	2	2	3	3
0.3	0	0	1	1	2	2	3	3	3	4	4
0.4	0	1	1	2	2	3	3	4	4	5	6
0.5	0	1	1	2	3	3	4	5	6	6	7

η'	ξ = 7 (m s)	Δ	s	ξ = 8 (m s)	Δ	s	ξ = 9 (m s)	Δ	s
0	5 7.40	.88	43.90	5 51.30	1.01	43.88	6 35.18	1.14	43.88
1	5 8.28	.89	44.03	5 52.31	1.01	44.01	6 36.32	1.14	44.00
2	5 9.17	.90	44.15	5 53.32	1.03	44.14	6 37.46	1.15	44.13
3	5 10.07	.90	44.28	5 54.35	1.02	44.26	6 38.61	1.16	44.26
4	5 10.97	.90	44.40	5 55.37	1.03	44.40	6 39.77	1.16	44.39
5	5 11.87	.90	44.53	5 56.40	1.04	44.53	6 40.93	1.17	44.51
6	5 12.78	.92	44.66	5 57.44	1.05	44.66	6 42.10	1.18	44.64
7	5 13.70	.92	44.79	5 58.49	1.06	44.79	6 43.28	1.19	44.77
8	5 14.62	.93	44.93	5 59.55	1.06	44.92	6 44.47	1.18	44.90
9	5 15.55	.93	45.06	6 0.61	1.07	45.04	6 45.65	1.20	45.05
10	5 16.48	.94	45.19	6 1.67	1.07	45.18	6 46.85	1.21	45.18
11	5 17.42	.94	45.32	6 2.74	1.08	45.32	6 48.06	1.21	45.31
12	5 18.36	.95	45.46	6 3.82	1.09	45.45	6 49.27	1.22	45.45
13	5 19.31	.96	45.60	6 4.91	1.09	45.58	6 50.49	1.23	45.57
14	5 20.27	.96	45.73	6 6.00	1.10	45.72	6 51.72	1.23	45.71
15	5 21.23	.97	45.87	6 7.10	1.10	45.85	6 52.95	1.25	45.85
16	5 22.20	.97	46.00	6 8.20	1.11	46.00	6 54.20	1.24	45.98
17	5 23.17	.98	46.14	6 9.31	1.12	46.13	6 55.44	1.26	46.13
18	5 24.15	.97	46.28	6 10.43	1.13	46.27	6 56.70	1.26	46.27
19	5 25.12	.99	46.44	6 11 56	1.13	46.40	6 57.96	1.27	46.42
20	5 26.11	1.00	46.58	6 12.69	1.14	46.54	6 59.23	1.29	46.55
21	5 27.11	1.00	46.72	6 13.83	1.13	46.69	7 0.52	1.29	46.69
22	5 28.11	1.01	46.85	6 14.96	1.16	46.85	7 1.81	1.29	46.83
23	5 29.12	1.02	47.00	6 16.12	1.16	46.98	7 3.10	1.31	46.98
24	5 30.14	1.02	47.14	6 17.28	1.16	47.13	7 4.41	1.30	47.12
25	5 31.16	1.02	47.28	6 18.44	1.18	47.27	7 5.71	1.32	47.28
26	5 32.18		47.44	6 19.62		47.41	7 7.03		47.42

η'	ξ = 10 (m s)	Δ	s	ξ = 11 (m s)	Δ	s	ξ = 12 (m s)	Δ	s	η'
0	7 19.06	1.26	43.88	8 2.94	1.39	43.85	8 46.79	1.52	43.85	0
1	7 20.32	1.27	44.01	8 4.33	1.39	43.98	8 48.31	1.52	43.97	1
2	7 21.59	1.28	44.13	8 5.72	1.41	44.11	8 49.83	1.54	44.11	2
3	7 22.87	1.29	44.26	8 7.13	1.41	44.24	8 51.37	1.53	44.22	3
4	7 24.16	1.28	44.38	8 8.54	1.42	44.36	8 52.90	1.55	44.36	4
5	7 25.44	1.30	44.52	8 9.96	1.44	44.49	8 54.45	1.56	44.49	5
6	7 26.74	1.31	44.66	8 11.40	1.43	44.61	8 56.01	1.57	44.63	6
7	7 28.05	1.32	44.78	8 12.83	1.45	44.75	8 57.58	1.58	44.75	7
8	7 29.37	1.33	44.91	8 14.28	1.45	44.88	8 59.16	1.59	44.88	8
9	7 30.70	1.33	45.03	8 15.73	1.47	45.02	9 0.75	1.59	45.01	9
10	7 32.03	1.34	45.17	8 17.20	1.46	45.14	9 2.34	1.60	45.15	10
11	7 33.37	1.35	45.29	8 18.66	1.49	45.28	9 3.94	1.62	45.29	11
12	7 34.72	1.34	45.43	8 20.15	1.49	45.41	9 5.56	1.63	45.42	12
13	7 36.06	1.37	45.58	8 21.64	1.50	45.55	9 7.19	1.63	45.54	13
14	7 37.43	1.37	45.71	8 23.14	1.51	45.68	9 8.82	1.65	45.69	14
15	7 38.80	1.38	45.85	8 24.65	1.51	45.82	9 10.47	1.65	45.82	15
16	7 40.18	1.39	45.98	8 26.16	1.53	45.96	9 12.12	1.66	45.96	16
17	7 41.57	1.40	46.12	8 27.69	1.54	46.09	9 13.78	1.68	46.11	17
18	7 42.97	1.41	46.26	8 29.23	1.54	46.23	9 15.46	1.69	46.24	18
19	7 44.38	1.40	46.39	8 30.77	1.55	46.38	9 17.15	1.68	46.37	19
20	7 45.78	1.43	46.54	8 32.32	1.56	46.51	9 18.83	1.71	46.53	20
21	7 47.21	1.43	46.67	8 33.88	1.58	46.66	9 20.54	1.72	46.66	21
22	7 48.64	1.44	46.82	8 35.46	1.58	46.80	9 22.26	1.73	46.80	22
23	7 50.08	1.45	46.96	8 37.04	1.59	46.95	9 23.99	1.73	46.95	23
24	7 51.53	1.46	47.10	8 38.63	1.60	47.09	9 25.72	1.75	47.09	24
25	7 52.99	1.46	47.24	8 40.23	1.62	47.24	9 27.47	1.76	47.24	25
26	7 54.45		47.40	8 41.85		47.38	9 29.23		47.38	26

λ (unità 0ˢ.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη' = 0.5	0	1	1	2	3	3	4	5	6	6	7
0.6	0	1	2	3	3	4	5	6	7	8	8
0.7	0	1	2	3	4	5	6	7	8	9	10
0.8	0	1	2	3	4	6	7	8	9	10	11
0.9	0	1	3	4	5	6	8	9	10	11	13
1.0	0	1	3	4	6	7	8	10	11	13	14

η'	$\xi=1$ (s)	Δ	s	$\xi=2$ (m s)	Δ	s	$\xi=3$ (m s)	Δ	s	$\xi=4$ (m s)	Δ	s	$\xi=5$ (m s)	Δ	s	$\xi=6$ (m s)	Δ	s	η'
0	42.48	.11	42.48	1 24.95	.24	42.47	2 7.43	.35	42.47	2 49.90	.47	42.47	3 32.37	.58	42.46	4 14.84	.70	42.46	0
1	42.59	.12	42.60	1 25.19	.24	42.59	2 7.78	.36	42.59	2 50.37	.47	42.58	3 32.95	.59	42.59	4 15.54	.71	42.57	1
2	42.71	.12	42.72	1 25.43	.23	42.71	2 8.14	.35	42.70	2 50.84	.47	42.70	3 33.54	.60	42.71	4 16.25	.71	42.69	2
3	42.83	.12	42.83	1 25.66	.24	42.83	2 8.49	.36	42.82	2 51.31	.48	42.83	3 34.14	.59	42.82	4 16.96	.71	42.81	3
4	42'95	.12	42.95	1 25.90	.24	42.95	2 8.85	.36	42.94	2 51.79	.48	42.94	3 34.73	.60	42.94	4 17.67	.72	42.93	4
5	43.07	.12	43.07	1 26.14	.24	43.07	2 9.21	.36	43.06	2 52.27	.48	43.06	3 35.33	.60	43.06	4 18.39	.72	43.05	5*
6	43.19	.12	43.19	1 26.38	.24	43.19	2 9.57	.37	43.18	2 52.75	.49	43.18	3 35.93	.61	43.18	4 19.11	.73	43.17	6
7	43.31	.12	43.31	1 26.62	.25	43.31	2 9.94	.36	43.30	2 53.24	.49	43.30	3 36.54	.61	43.30	4 19.84	.73	43.29	7
8	43.43	.13	43.44	1 26.87	.24	43.43	2 10.30	.37	43.43	2 53.73	.49	43.42	3 37.15	.61	43.42	4 20.57	.74	43.42	8
9	43.56	.12	43.55	1 27.11	.25	43'56	2 10.67	.37	43.55	2 54.22	.49	43.54	3 37.76	.62	43.55	4 21.31	.74	43.54	9
10	43.68	.12	43.68	1 27.36	.25	43.68	2 11.04	.37	43.67	2 54.71	.49	43.67	3 38.38	.63	43.67	4 22.05	.74	43.66	10
11	43.80	.13	43.81	1 27.61	.25	43.80	2 11.41	.38	43.79	2 55.20	.50	43.80	3 39.00	.62	43.79	4 22.79	.75	43.79	11
12	43.93	.12	43.93	1 27.86	.25	43.93	2 11.79	.37	43.91	2 55.70	.51	43.92	3 39.62	.63	43.92	4 23.54	.75	43.91	12
13	44.05	.13	44.05	1 28.11	.25	44.05	2 12.16	.38	44.05	2 56.21	.50	44.04	3 40.25	.63	44.04	4 24.29	.75	44.03	13
14	44.18	.13	44.18	1 28.36	.25	44.18	2 12.54	.38	44.17	2 56.71	.51	44.17	3 40.88	.63	44.16	4 25.04	.76	44.17	14
15	44.31	.12	44.30	1 28.61	.26	44.31	2 12.92	.38	44.30	2 57.22	.51	44.29	3 41.51	.64	44.29	4 25.80	.77	44.30	15
16	44.43	.13	44.44	1 28.87	.26	44.43	2 13.30	.39	44.43	2 57.73	.51	44.42	3 42.15	.64	44.42	4 26.57	.77	44.42	16
17	44.56	.13	44.57	1 29.13	.25	44.56	2 13.69	.39	44.55	2 58.24	.52	44.55	3 42.79	.65	44.55	4 27.34	.77	44.55	17
18	44.69	.13	44.69	1 29.38	.26	44.70	2 14.08	.38	44.68	2 58.76	.52	44.68	3 43.44	.65	44.67	4 28.11	.78	44.68	18
19	44.82	.13	44.82	1 29.64	.26	44.82	2 14.46	.40	44.82	2 59.28	.52	44.81	3 44.09	.65	44.80	4 28.89	.78	44.81	19
20	44.95	.13	44.95	1 29.90	.27	44.96	2 14.86	.38	44.94	2 59.80	.52	44.94	3 44.74	.66	44.93	4 29.67	.79	44.94	20
21	45.08	.14	45.09	1 30.17	.26	45.07	2 15.24	.40	45.08	3 0.32	.53	45.08	3 45.40	.66	45.06	4 30.46	.79	45.07	21
22	45.22	.13	45.21	1 30.43	.27	45.21	2 15.64	.39	45.21	3 0.85	.53	45.21	3 46.06	.66	45.19	4 31.25	.80	45.21	22
23	45.35	.13	45.35	1 30.70	.26	45.33	2 16.03	.41	45.35	3 1.38	.54	45.34	3 46.72	.67	45.33	4 32.05	.80	45.34	23
24	45.48	.14	45.48	1 30.96	.27	45.48	2 16.44	.40	45.48	3 1.92	.54	45.47	3 47.39	.67	45.46	4 32.85	.81	45.47	24
25	45.62	.13	45.61	1 31.23	.27	45.61	2 16.84	.40	45.62	3 2.46	.54	45.60	3 48.06	.68	45.60	4 33.66	.81	45.60	25
26	45.75		45.75	1 31.50		45'74	2 17.24		45.76	3 3.00		45.74	3 48.74		45.73	4 34.47		45.74	26

λ (unità 0s.01)

$\Delta\xi=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta'=$ 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	1	1	1	1	1	1	1
0.2	0	0	1	1	1	1	2	2	2	2	3
0.3	0	0	1	1	2	2	2	3	3	4	4
0.4	0	1	1	2	2	3	3	4	4	5	5
0.5	0	1	1	2	3	3	4	5	5	6	6

η'	$\xi = 7$			$\xi = 8$			$\xi = 9$			$\xi = 10$			$\xi = 11$			$\xi = 12$			η'
	m s		s	m s		s	m s		s	m s		s	m s		s	m s		s	
0	4 57.30	.81	42.45	5 39.75	.95	42.45	6 22.20	1.06	42.44	7 4.64	1.17	42.43	7 47.07	1.29	42.43	8 29.50	1.41	42.41	0
1	4 58.11	.83	42.59	5 40.70	.94	42.56	6 23.26	1.06	42.55	7 5.81	1.18	42.55	7 48.36	1.30	42.55	8 30.91	1.40	42.51	1
2	4 58.94	.83	42.70	5 41.64	.95	42.68	6 24.32	1.06	42.67	7 6.99	1.18	42.67	7 49.66	1.30	42.65	8 32.31	1.42	42.64	2
3	4 59.77	.83	42.82	5 42.59	.95	42.79	6 25.38	1.07	42.79	7 8.17	1.19	42.79	7 50.96	1.31	42.77	8 33.73	1.43	42.77	3
4	5 0.60	.84	42.94	5 43.54	.96	42.91	6 26.45	1.08	42.91	7 9.36	1.20	42.91	7 52.27	1.32	42.89	8 35.16	1.44	42.87	4
5	5 1.44	.84	43.06	5 44.50	.96	43.03	6 27.53	1.09	43.03	7 10.56	1.21	43.03	7 53.59	1.32	43.01	8 36.60	1.44	42.99	5
6	5 2.28	.85	43.18	5 45.46	.97	43.16	6 28.62	1.09	43.15	7 11.77	1.21	43.14	7 54.91	1.33	43.13	8 38.04	1.45	43.12	6
7	5 3.13	.86	43.30	5 46.43	.97	43.28	6 29.71	1.10	43.27	7 12.98	1.22	43.26	7 56.24	1.34	43.25	8 39.49	1.47	43.24	7
8	5 3.99	.86	43.41	5 47.40	.98	43.41	6 30.81	1.10	43.39	7 14.20	1.21	43.38	7 57.58	1.35	43.38	8 40.96	1.47	43.36	8
9	5 4.85	.86	43.53	5 48.38	.99	43.53	6 31.91	1.11	43.50	7 15.41	1.24	43.52	7 58.93	1.36	43.50	8 42.43	1.48	43.47	9
10	5 5.71	.87	43.66	5 49.37	.99	43.65	6 33.02	1.11	43.63	7 16.65	1.24	43.64	8 0.29	1.36	43.62	8 43.91	1.47	43.60	10
11	5 6.58	.87	43.78	5 50.36	.99	43.77	6 34.13	1.12	43.76	7 17.89	1.24	43.76	8 1.65	1.37	43.73	8 45.38	1.50	43.74	11
12	5 7.45	.87	43.90	5 51.35	1.00	43.90	6 35.25	1.12	43.88	7 19.13	1.26	43.89	8 3.02	1.37	43.86	8 46.88	1.50	43.86	12
13	5 8.32	.89	44.03	5 52.35	1.02	44.02	6 36.37	1.14	44.02	7 20.39	1.26	44.00	8 4.39	1.39	43.99	8 48.38	1.52	43.98	13
14	5 9.21	.89	44.16	5 53.37	1.01	44.14	6 37.51	1.14	44.14	7 21.65	1.27	44.13	8 5.78	1.39	44.12	8 49.90	1.52	44.11	14
15	5 10.10	.89	44.28	5 54.38	1.01	44.27	6 38.65	1.15	44.27	7 22.92	1.27	44.25	8 7.17	1.41	44.25	8 51.42	1.52	44.23	15
16	5 10.99	.90	44.40	5 55.39	1.03	44.41	6 39.80	1.15	44.39	7 24.19	1.28	44.39	8 8.58	1.41	44.36	8 52.94	1.54	44.37	16
17	5 11.89	.90	44.53	5 56.42	1.03	44.53	6 40.95	1.17	44.52	7 25.47	1.29	44.52	8 9.99	1.42	44.49	8 54.48	1.55	44.50	17
18	5 12.79	.91	44.66	5 57.45	1.04	44.67	6 42.12	1.16	44.64	7 26.76	1.29	44.65	8 11.41	1.42	44.62	8 56.03	1.55	44.62	18
19	5 13.70	.91	44.79	5 58.49	1.05	44.79	6 43.28	1.18	44.77	7 28.05	1.31	44.78	8 12.83	1.43	44.75	8 57.58	1.56	44.75	19
20	5 14.61	.92	44.93	5 59.54	1.05	44.92	6 44.46	1.17	44.90	7 29.36	1.31	44.90	8 14.26	1.45	44.88	8 59.14	1.58	44.89	20
21	5 15.53	.93	45.06	6 0.59	1.05	45.04	6 45.63	1.19	45.04	7 30.67	1.32	45.04	8 15.71	1.45	45.01	9 0.72	1.57	45.01	21
22	5 16.46	.93	45.18	6 1.64	1.07	45.18	6 46.82	1.19	45.17	7 31.99	1.33	45.17	8 17.16	1.45	45.13	9 2.29	1.60	45.15	22
23	5 17.39	.93	45.32	6 2.71	1.06	45.30	6 48.01	1.21	45.31	7 33.32	1.34	45.29	8 18.61	1.47	45.28	9 3.89	1.60	45.28	23
24	5 18.32	.94	45.45	6 3.77	1.08	45.45	6 49.22	1.21	45.44	7 34.66	1.33	45.42	8 20.08	1.48	45.41	9 5.49	1.62	45.41	24
25	5 19.26	.95	45.59	6 4.85	1.08	45.58	6 50.43	1.21	45.56	7 35.99	1.36	45.57	8 21.56	1.49	45.55	9 7.11	1.61	45.53	25
26	5 20.21		45.72	6 5.93		45.71	6 51.64		45.71	7 37.35		45.70	8 23.05		45.67	9 8.72		45.68	26

λ (unità 0s.01)

$\Delta\xi =$	**0.0**	**0.1**	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**	**1.0**
$\Delta\eta' =$ **0.5**	0	1	1	2	3	3	4	5	5	6	6
0.6	0	1	2	2	3	4	5	5	6	7	8
0.7	0	1	2	3	4	5	5	6	7	8	9
0.8	0	1	2	3	4	5	6	7	8	9	10
0.9	0	1	2	4	5	6	7	8	9	11	12
1.0	0	1	3	4	5	6	8	9	10	12	13

η'	$\xi = 1$		$\xi = 2$		$\xi = 3$		$\xi = 4$		$\xi = 5$		$\xi = 6$		η'
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	41.14	41.14	1 22.28	41.13	2 3.41	41.13	2 44.54	41.13	3 25.67	41.13	4 6.80	41.13	0
	.11		.21		.33		.44		.55		.65		
1	41.25	41.24	1 22.49	41.25	2 3.74	41.24	2 44.98	41.24	3 26.22	41.23	4 7.45	41.24	1
	.11		.22		.33		.44		.54		.66		
2	41.36	41.35	1 22.71	41.36	2 4.07	41.35	2 45.42	41.34	3 26.76	41.35	4 8.11	41.35	2
	.11		.22		.33		.44		.55		.66		
3	41.47	41.46	1 22.93	41.47	2 4.40	41.46	2 45.86	41.45	3 27.31	41.46	4 8.77	41.46	3
	.11		.22		.33		.44		.56		.66		
4	41.58	41.57	1 23.15	41.58	2 4.73	41.57	2 46.30	41.57	3 27.87	41.56	4 9.43	41.57	4
	.11		.23		.34		.45		.55		.67		
5	41.69	41.69	1 23.38	41.69	2 5.07	41.68	2 46.75	41.67	3 28.42	41.68	4 10.10	41.68	5
	.11		.22		.33		.44		.56		.67		
6	41.80	41.80	1 23.60	41.80	2 5.40	41.79	2 47.19	41.79	3 28.98	41.79	4 10.77	41.79	6
	.11		.23		.34		.45		.57		.68		
7	41.91	41.92	1 23.83	41.91	2 5.74	41.90	2 47.64	41.91	3 29.55	41.90	4 11.45	41.90	7
	.12		.22		.34		.46		.56		.68		
8	42.03	42.02	1 24.05	42.03	2 6.08	42.02	2 48.10	42.01	3 30.11	42.02	4 12.13	42.01	8
	.11		.23		.34		.45		.57		.68		
9	42.14	42.14	1 24.28	42.14	2 6.42	42.13	2 48.55	42.13	3 30.68	42.13	4 12.81	42.13	9
	.11		.23		.34		.46		.57		.69		
10	42.25	42.26	1 24.51	42.25	2 6.76	42.25	2 49.01	42.24	3 31.25	42.25	4 13.50	42.23	10
	.12		.23		.35		.46		.58		.69		
11	42.37	42.37	1 24.74	42.37	2 7.11	42.36	2 49.47	42.36	3 31.83	42.36	4 14.19	42.35	11
	.11		.23		.34		.46		.57		.69		
12	42.48	42.49	1 24.97	42.48	2 7.45	42.48	2 49.93	42.47	3 32.40	42.48	4 14.88	42.46	12
	.12		.23		.35		.46		.59		.70		
13	42.60	42.60	1 25.20	42.60	2 7.80	42.59	2 50.39	42.60	3 32.99	42.59	4 15.58	42.58	13
	.12		.23		.35		.47		.58		.70		
14	42.72	42.71	1 25.43	42.72	2 8.15	42.71	2 50.86	42.71	3 33.57	42.71	4 16.28	42.70	14
	.12		.24		.35		.47		.59		.70		
15	42.84	42.83	1 25.67	42.83	2 8.50	42.83	2 51.33	42.83	3 34.16	42.82	4 16.98	42.82	15
	.11		.24		.36		.47		.59		.71		
16	42.95	42.96	1 25.91	42.95	2 8.86	42.94	2 51.80	42.95	3 34.75	42.94	4 17.69	42.94	16
	.12		.23		.35		.48		.59		.71		
17	43.07	43.07	1 26.14	43.07	2 9.21	43.07	2 52.28	43.06	3 35.34	43.06	4 18.40	43.06	17
	.12		.24		.36		.48		.60		.72		
18	43.19	43.19	1 26.38	43.19	2 9.57	43.19	2 52.76	43.18	3 35.94	43.18	4 19.12	43.17	18
	.12		.24		.36		.48		.60		.72		
19	43.31	43.31	1 26.62	43.31	2 9.93	43.31	2 53.24	43.30	3 36.54	43.30	4 19.84	43.29	19
	.12		.24		.36		.48		.60		.72		
20	43.43	43.43	1 26.86	43.43	2 10.29	43.43	2 53.72	43.42	3 37.14	43.42	4 20.56	43.42	20
	.12		.25		.37		.49		.61		.73		
21	43.55	43.56	1 27.11	43.55	2 10.66	43.55	2 54.21	43.54	3 37.75	43.54	4 21.29	43.54	21
	.13		.24		.36		.49		.61		.74		
22	43.68	43.67	1 27.35	43.67	2 11.02	43.68	2 54.70	43.66	3 38.36	43.67	4 22.03	43.65	22
	.12		.25		.37		.49		.62		.73		
23	43.80	43.80	1 27.60	43.79	2 11.39	43.80	2 55.19	43.79	3 38.98	43.78	4 22.76	43.78	23
	.12		.24		.37		.49		.61		.74		
24	43.92	43.92	1 27.84	43.92	2 11.76	43.92	2 55.68	43.91	3 39.59	43.91	4 23.50	43.91	24
	.13		.25		.38		.50		.62		.75		
25	44.05	44.04	1 28.09	44.05	2 12.14	44.04	2 56.18	44.03	3 40.21	44.04	4 24.25	44.03	25
	.12		.25		.37		.50		.63		.75		
26	44.17	44.17	1 28.34	44.17	2 12.51	44.17	2 56.68	44.16	3 40.84	44.16	4 25.00	44.15	26

λ (unità $0^s.01$)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	1	1	1	1	1	1
0.2	0	0	0	1	1	1	1	2	2	2	2
0.3	0	0	1	1	1	2	2	3	3	3	4
0.4	0	0	1	1	2	2	3	3	4	4	5
0.5	0	1	1	2	2	3	4	4	5	5	6

Prontuari delle AR: Zona +62°

η'	$\xi=7$			$\xi=8$			$\xi=9$			$\xi=10$			$\xi=11$			$\xi=12$			η'
	m s		s	m s		s	m s		s	m s		s	m s		s	m s		s	
0	4 47.93		41.12	5 29.05		41.11	6 10.16		41.10	6 51.26		41.10	7 32.36		41.09	8 13.45		41.08	0
		.76			.87			.98			1.09			1.20			1.31		
1	4 48.69		41.23	5 29.92		41.22	6 11.14		41.21	6 52.35		41.21	7 33.56		41.20	8 14.76		41.18	1
		.77			.87			.99			1.10			1.20			1.31		
2	4 49.46		41.33	5 30.79		41.34	6 12.13		41.32	6 53.45		41.31	7 34.76		41.31	8 16.07		41.29	2
		.77			.88			.99			1.10			1.20			1.31		
3	4 50.23		41.44	5 31.67		41.45	6 13.12		41.43	6 54.55		41.41	7 35.96		41.42	8 17.38		41.41	3
		.77			.89			.99			1.09			1.22			1.33		
4	4 51.00		41.56	5 32.56		41.55	6 14.11		41.53	6 55.64		41.54	7 37.18		41.53	8 18.71		41.52	4
		.78			.89			1.00			1.12			1.23			1.34		
5	4 51.78		41.67	5 33.45		41.66	6 15.11		41.65	6 56.76		41.65	7 38.41		41.64	8 20.05		41.62	5
		.78			.89			1.01			1.12			1.23			1.34		
6	4 52.56		41.78	5 34.34		41.78	6 16.12		41.76	6 57.88		41.76	7 39.64		41.75	8 21.39		41.73	6
		.79			.90			1.01			1.12			1.23			1.35		
7	4 53.35		41.89	5 35.24		41.89	6 17.13		41.87	6 59.00		41.87	7 40.87		41.87	8 22.74		41.84	7
		.79			.91			1.02			1.13			1.25			1.36		
8	4 54.14		42.01	5 36.15		42.00	6 18.15		41.98	7 0.13		41.99	7 42.12		41.98	8 24.10		41.95	8
		.80			.91			1.02			1.14			1.25			1.35		
9	4 54.94		42.12	5 37.06		42.11	6 19.17		42.10	7 1.27		42.10	7 43.37		42.08	8 25.45		42.07	9
		.79			.91			1.03			1.14			1.26			1.37		
10	4 55.73		42.24	5 37.97		42.23	6 20.20		42.21	7 2.41		42.22	7 44.63		42.19	8 26.82		42.19	10
		.81			.92			1.03			1.15			1.25			1.38		
11	4 56.54		42.35	5 38.89		42.34	6 21.23		42.33	7 3.56		42.32	7 45.88		42.32	8 28.20		42.30	11
		.80			.93			1.04			1.16			1.27			1.39		
12	4 57.34		42.48	5 39.82		42.45	6 22.27		42.45	7 4.72		42.43	7 47.15		42.44	8 29.59		42.41	12
		.82			.93			1.05			1.15			1.28			1.39		
13	4 58.16		42.59	5 40.75		42.57	6 23.32		42.55	7 5.87		42.56	7 48.43		42.55	8 30.98		42.52	13
		.82			.92			1.04			1.17			1.28			1.40		
14	4 58.98		42.69	5 41.67		42.69	6 24.36		42.68	7 7.04		42.67	7 49.71		42.67	8 32.38		42.65	14
		.82			.94			1.06			1.17			1.29			1.40		
15	4 59.80		42.81	5 42.61		42.81	6 25.42		42.79	7 8.21		42.79	7 51.00		42.78	8 33.78		42.77	15
		.83			.95			1.06			1.18			1.30			1.42		
16	5 0.63		42.93	5 43.56		42.92	6 26.48		42.91	7 9.39		42.91	7 52.30		42.90	8 35.20		42.89	16
		.83			.95			1.07			1.19			1.31			1.42		
17	5 1.46		43.05	5 44.51		43.04	6 27.55		43.03	7 10.58		43.03	7 53.61		43.01	8 36.62		43.01	17
		.83			.95			1.07			1.20			1.31			1.44		
18	5 2.29		43.17	5 45.46		43.16	6 28.62		43.16	7 11.78		43.14	7 54.92		43.14	8 38.06		43.12	18
		.84			.96			1.08			1.20			1.32			1.43		
19	5 3.13		43.29	5 46.42		43.28	6 29.70		43.28	7 12.98		43.26	7 56.24		43.25	8 39.49		43.25	19
		.85			.97			1.09			1.20			1.33			1.45		
20	5 3.98		43.41	5 47.39		43.40	6 30.79		43.39	7 14.18		43.39	7 57.57		43.37	8 40.94		43.37	20
		.85			.97			1.09			1.22			1.33			1.46		
21	5 4.83		43.53	5 48.36		43.52	6 31.88		43.52	7 15.40		43.50	7 58.90		43.50	8 42.40		43.49	21
		.85			.97			1.10			1.22			1.34			1.46		
22	5 5.68		43.65	5 49.33		43.65	6 32.98		43.64	7 16.62		43.62	8 0.24		43.62	8 43.86		43.61	22
		.86			.99			1.10			1.22			1.35			1.47		
23	5 6.54		43.78	5 50.32		43.76	6 34.08		43.76	7 17.84		43.75	8 1.59		43.74	8 45.33		43.73	23
		.87			.98			1.11			1.24			1.36			1.48		
24	5 7.41		43.89	5 51.30		43.89	6 35.19		43.89	7 19.08		43.87	8 2.95		43.86	8 46.81		43.86	24
		.87			1.00			1.12			1.24			1.37			1.49		
25	5 8.28		44.02	5 52.30		44.01	6 36.31		44.01	7 20.32		44.00	8 4.32		43.98	8 48.30		43.98	25
		.87			1.00			1.12			1.25			1.37			1.50		
26	5 9.15		44.15	5 53.30		44.13	6 37.43		44.14	7 21.57		44.12	8 5.69		44.11	8 49.80		44.10	26

λ (unità $0^s.01$)

$\Delta\xi=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta'=$ 0.5	0	1	1	2	2	3	4	4	5	5	6
0.6	0	1	1	2	3	4	4	5	6	6	7
0.7	0	1	2	3	3	4	5	6	7	8	8
0.8	0	1	2	3	4	5	6	7	8	9	10
0.9	0	1	2	3	4	5	6	8	9	10	11
1.0	0	1	2	4	5	6	7	8	10	11	12

η'	$\xi = 1$	Δ		$\xi = 2$	Δ		$\xi = 3$	Δ		$\xi = 4$	Δ		$\xi = 5$	Δ		$\xi = 6$	Δ		η'
	s		s	m s		s	m s		s	m s		s	m s		s	m s		s	
0	39.89	.10	39.89	1 19.78	.21	39.89	1 59.67	.31	39.89	2 39.56	.41	39.89	3 19.45	.51	39.88	3 59.33	.61	39.88	0
1	39.99	.11	40.00	1 19.99	.20	39.99	1 59.98	.30	39.99	2 39.97	.41	39.99	3 19.96	.51	39.98	3 59.94	.61	39.98	1
2	40.10	.10	40.09	1 20.19	.21	40.09	2 0.28	.31	40.10	2 40.38	.41	40.09	3 20.47	.51	40.08	4 0.55	.62	40.08	2
3	40.20	.10	40.20	1 20.40	.20	40.19	2 0.59	.31	40.20	2 40.79	.41	40.19	3 20.98	.51	40.19	4 1.17	.61	40.18	3
4	40.30	.11	40.30	1 20.60	.21	40.30	2 0.90	.31	40.30	2 41.20	.41	40.29	3 21.49	.52	40.29	4 1.78	.63	40.29	4
5	40.41	.10	40.40	1 20.81	.21	40.40	2 1.21	.31	40.40	2 41.61	.42	40.40	3 22.01	.52	40.40	4 2.41	.62	40.39	5
6	40.51	.10	40.51	1 21.02	.21	40.50	2 1.52	.32	40.51	2 42.03	.42	40.50	3 22.53	.52	40.50	4 3.03	.63	40.49	6
7	40.61	.11	40.62	1 21.23	.21	40.61	2 1.84	.31	40.61	2 42.45	.42	40.60	3 23.05	.53	40.61	4 3.66	.63	40.60	7
8	40.72	.10	40.72	1 21.44	.21	40.71	2 2.15	.32	40.72	2 42.87	.42	40.71	3 23.58	.53	40.71	4 4.29	.63	40.70	8
9	40.82	.11	40.83	1 21.65	.21	40.82	2 2.47	.32	40.82	2 43.29	.43	40.82	3 24.11	.53	40.81	4 4.92	.64	40.81	9
10	40.93	.11	40.93	1 21.86	.21	40.93	2 2.79	.32	40.93	2 43.72	.42	40.92	3 24.64	.53	40.92	4 5.56	.64	40.92	10
11	41.04	.11	41.03	1 22.07	.22	41.04	2 3.11	.32	41.03	2 44.14	.43	41.03	3 25.17	.54	41.03	4 6.20	.65	41.02	11
12	41.15	.10	41.14	1 22.29	.22	41.14	2 3.43	.33	41.14	2 44.57	.44	41.14	3 25.71	.54	41.14	4 6.85	.64	41.13	12
13	41.25	.11	41.26	1 22.51	.21	41.25	2 3.76	.32	41.25	2 45.01	.43	41.24	3 26.25	.54	41.24	4 7.49	.65	41.24	13
14	41.36	.11	41.36	1 22.72	.22	41.36	2 4.08	.33	41.36	2 45.44	.44	41.35	3 26.79	.55	41.35	4 8.14	.66	41.35	14
15	41.47	.11	41.47	1 22.94	.22	41.47	2 4.41	.33	41.47	2 45.88	.43	41.46	3 27.34	.55	41.46	4 8.80	.66	41.45	15
16	41.58	.11	41.58	1 23.16	.22	41.58	2 4.74	.33	41.57	2 46.31	.45	41.58	3 27.89	.55	41.57	4 9.46	.66	41.56	16
17	41.69	.11	41.69	1 23.38	.22	41.69	2 5.07	.33	41.69	2 46.76	.44	41.68	3 28.44	.55	41.68	4 10.12	.66	41.67	17
18	41.80	.11	41.80	1 23.60	.23	41.80	2 5.40	.34	41.80	2 47.20	.44	41.79	3 28.99	.56	41.79	4 10.78	.67	41.79	18
19	41.91	.12	41.92	1 23.83	.22	41.91	2 5.74	.33	41.90	2 47.64	.45	41.91	3 29.55	.56	41.90	4 11.45	.67	41.90	19
20	42.03	.11	42.02	1 24.05	.22	42.02	2 6.07	.34	42.02	2 48.09	.45	42.02	3 30.11	.56	42.01	4 12.12	.68	42.01	20
21	42.14	.11	42.13	1 24.27	.23	42.14	2 6.41	.34	42.13	2 48.54	.45	42.13	3 30.67	.57	42.13	4 12.80	.68	42.12	21
22	42.25	.11	42.25	1 24.50	.23	42.25	2 6.75	.34	42.24	2 48.99	.46	42.25	3 31.24	.56	42.24	4 13.48	.68	42.23	22
23	42.36	.12	42.37	1 24.73	.23	42.36	2 7.09	.34	42.36	2 49.45	.46	42.35	3 31.80	.58	42.36	4 14.16	.69	42.35	23
24	42.48	.11	42.48	1 24.96	.23	42.47	2 7.43	.35	42.48	2 49.91	.46	42.47	3 32.38	.58	42.47	4 14.85	.69	42.46	24
25	42.59	.12	42.60	1 25.19	.23	42.59	2 7.78	.35	42.59	2 50.37	.46	42.59	3 32.96	.57	42.58	4 15.54	.69	42.57	25
26	42.71		42.71	1 25.42		42.71	2 8.13		42.70	2 50.83		42.70	3 33.53		42.70	4 16.23		42.69	26

λ (unità 0s.01)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	1	1	1	1	1	1
0.2	0	0	0	1	1	1	1	2	2	2	2
0.3	0	0	1	1	1	2	2	2	3	3	3
0.4	0	0	1	1	2	2	3	3	4	4	4
0.5	0	1	1	2	2	3	3	4	4	5	5

η′	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		η′
	m s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	4 39.21	39.87	5 19.08	39.87	5 58.95	39.86	6 38.81	39.86	7 18.67	39.85	7 58.52	39.84	0
	.71		.81		.91		1.02		1.11		1.21		
1	4 39.92	39.97	5 19.89	39.97	5 59.86	39.97	6 39.83	39.95	7 19.78	39.95	7 59.73	39.94	1
	.71		.82		.92		1.02		1.12		1.23		
2	4 40.63	40.08	5 20.71	40.07	6 0.78	40.07	6 40.85	40.05	7 20.90	40.06	8 0.96	40.04	2
	.72		.82		.92		1.02		1.13		1.22		
3	4 41.35	40.18	5 21.53	40.17	6 1.70	40.17	6 41.87	40.16	7 22.03	40.15	8 2.18	40.15	3
	.72		.82		.93		1.03		1.13		1.24		
4	4 42.07	40.28	5 22.35	40.28	6 2.63	40.27	6 42.90	40.26	7 23.16	40.26	8 3.42	40.25	4
	.73		.83		.93		1.03		1.14		1.24		
5	4 42.80	40.38	5 23.18	40.38	6 3.56	40.37	6 43.93	40.37	7 24.30	40.36	8 4.66	40.35	5
	.72		.83		.94		1.04		1.15		1.25		
6	4 43.52	40.49	5 24.01	40.49	6 4.50	40.47	6 44.97	40.48	7 25.45	40.46	8 5.91	40.45	6
	.74		.84		.94		1.05		1.14		1.25		
7	4 44.26	40.59	5 24.85	40.59	6 5.44	40.58	6 46.02	40.57	7 26.59	40.57	8 7.16	40.56	7
	.73		.84		.95		1.05		1.16		1.27		
8	4 44.99	40.70	5 25.69	40.70	6 6.39	40.68	6 47.07	40.68	7 27.75	40.68	8 8.43	40.66	8
	.74		.85		.95		1.06		1.16		1.26		
9	4 45.73	40.81	5 26.54	40.80	6 7.34	40.79	6 48.13	40.78	7 28.91	40.78	8 9.69	40.77	9
	.75		.85		.95		1.06		1.17		1.28		
10	4 46.48	40.91	5 27.39	40.90	6 8.29	40.90	6 49.19	40.89	7 30.08	40.89	8 10.97	40.87	10
	.74		.85		.96		1.07		1.17		1.27		
11	4 47.22	41.02	5 28.24	41.01	6 9.25	41.01	6 50.26	40.99	7 31.25	40.99	8 12.24	40.98	11
	.76		.86		.97		1.07		1.19		1.29		
12	4 47.98	41.12	5 29.10	41.12	6 10.22	41.11	6 51.33	41.11	7 32.44	41.09	8 13.53	41.09	12
	.75		.86		.97		1.08		1.18		1.30		
13	4 48.73	41.23	5 29.96	41.23	6 11.19	41.22	6 52.41	41.21	7 33.62	41.21	8 14.83	41.19	13
	.76		.87		.98		1.08		1.19		1.30		
14	4 49.49	41.34	5 30.83	41.34	6 12.17	41.32	6 53.49	41.32	7 34.81	41.32	8 16.13	41.30	14
	.76		.87		.97		1.09		1.20		1.30		
15	4 50.25	41.45	5 31.70	41.44	6 13.14	41.44	6 54.58	41.43	7 36.01	41.42	8 17.43	41.41	15
	.77		.88		.99		1.10		1.21		1.32		
16	4 51.02	41.56	5 32.58	41.55	6 14.13	41.55	6 55.68	41.54	7 37.22	41.53	8 18.75	41.52	16
	.77		.88		.99		1.10		1.21		1.32		
17	4 51.79	41.67	5 33.46	41.66	6 15.12	41.66	6 56.78	41.65	7 38.43	41.64	8 20.07	41.63	17
	.78		.89		1.00		1.11		1.22		1.33		
18	4 52.57	41.78	5 34.35	41.77	6 16.12	41.77	6 57.89	41.76	7 39.65	41.75	8 21.40	41.74	18
	.78		.89		1.00		1.11		1.22		1.33		
19	4 53.35	41.89	5 35.24	41.88	6 17.12	41.88	6 59.00	41.87	7 40.87	41.86	8 22.73	41.86	19
	.78		.89		1.01		1.12		1.23		1.35		
20	4 54.13	42.00	5 36.13	42.00	6 18.13	41.99	7 0.12	41.98	7 42.10	41.98	8 24.08	41.96	20
	.79		.91		1.02		1.13		1.24		1.35		
21	4 54.92	42.12	5 37.04	42.11	6 19.15	42.10	7 1.25	42.09	7 43.34	42.09	8 25.43	42.07	21
	.79		.90		1.01		1.13		1.24		1.35		
22	4 55.71	42.23	5 37.94	42.22	6 20.16	42.22	7 2.38	42.20	7 44.58	42.20	8 26.78	42.19	22
	.80		.91		1.03		1.13		1.25		1.37		
23	4 56.51	42.34	5 38.85	42.34	6 21.19	42.32	7 3.51	42.32	7 45.83	42.32	8 28.15	42.30	23
	.80		.92		1.03		1.15		1.26		1.37		
24	4 57.31	42.46	5 39.77	42.45	6 22.22	42.44	7 4.66	42.43	7 47.09	42.43	8 29.52	42.42	24
	.80		.92		1.03		1.15		1.27		1.38		
25	4 58.11	42.58	5 40.69	42.56	6 23.25	42.56	7 5.81	42.55	7 48.36	42.54	8 30.90	42.53	25
	.81		.92		1.04		1.15		1.27		1.38		
26	4 58.92	42.69	5 41.61	42.68	6 24.29	42.67	7 6.96	42.67	7 49.63	42.65	8 32.28	42.65	26

λ (unità 0s.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη′ = 0.5	0	1	1	2	2	3	3	4	4	5	5
0.6	0	1	1	2	3	3	4	5	5	6	7
0.7	0	1	2	2	3	4	5	5	6	7	8
0.8	0	1	2	3	4	4	5	6	7	8	9
0.9	0	1	2	3	4	5	6	7	8	9	10
1.0	0	1	2	3	4	5	7	8	9	10	11

η′	ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η′
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	38.73	38.73	1 17.46	38.73	1 56.19	38.73	2 34.92	38.72	3 13.64	38.73	3 52.37	38.72	0
	.10		.19		.29		.38		.48		.57		
1	38.83	38.82	1 17.65	38.83	1 56.48	38.82	2 35.30	38.82	3 14.12	38.82	3 52.94	38.81	1
	.09		.19		.28		.38		.47		.57		
2	38.92	38.92	1 17.84	38.92	1 56.76	38.92	2 35.68	38.91	3 14.59	38.92	3 53.51	38.90	2
	.10		.19		.29		.38		.48		.57		
3	39.02	39.01	1 18.03	39.02	1 57.05	39.01	2 36.06	39.01	3 15.07	39.01	3 54.08	39.00	3
	.09		.20		.29		.39		.48		.58		
4	39.11	39.12	1 18.23	39.11	1 57.34	39.11	2 36.45	39.10	3 15.55	39.11	3 54.66	39.10	4
	.10		.19		.29		.38		.49		.58		
5	39.21	39.21	1 18.42	39.21	1 57.63	39.20	2 36.83	39.21	3 16.04	39.20	3 55.24	39.19	5
	.10		.19		.29		.39		.48		.58		
6	39.31	39.30	1 18.61	39.31	1 57.92	39.30	2 37.22	39.30	3 16.52	39.30	3 55.82	39.29	6
	.09		.20		.29		.39		.49		.58		
7	39.40	39.41	1 18.81	39.40	1 58.21	39.40	2 37.61	39.40	3 17.01	39.39	3 56.40	39.39	7
	.10		.19		.29		.39		.49		.59		
8	39.50	39.50	1 19.00	39.50	1 58.50	39.50	2 38.00	39.50	3 17.50	39.49	3 56.99	39.49	8
	.10		.20		.30		.40		.49		.59		
9	39.60	39.60	1 19.20	39.60	1 58.80	39.60	2 38.40	39.59	3 17.99	39.59	3 57.58	39.59	9
	.10		.20		.30		.39		.49		.60		
10	39.70	39.70	1 19.40	39.70	1 59.10	39.69	2 38.79	39.69	3 18.48	39.70	3 58.18	39.68	10
	.10		.20		.30		.40		.50		.59		
11	39.80	39.80	1 19.60	39.80	1 59.40	39.79	2 39.19	39.79	3 18.98	39.79	3 58.77	39.79	11
	.10		.20		.30		.40		.50		.60		
12	39.90	39.90	1 19.80	39.90	1 59.70	39.89	2 39.59	39.89	3 19.48	39.89	3 59.37	39.89	12
	.10		.20		.30		.40		.51		.61		
13	40.00	40.00	1 20.00	40.90	2 0.00	39.99	2 39.99	40.00	3 19.99	39.99	3 59.98	39.98	13
	.10		.20		.30		.41		.50		.60		
14	40.10	40.10	1 20.20	40.10	2 0.30	40.10	2 40.40	40.09	3 20.49	40.09	4 0.58	40.09	14
	.10		.20		.30		.40		.51		.61		
15	40.20	40.20	1 20.40	40.20	2 0.60	40.20	2 40.80	40.20	3 21.00	40.19	4 1.19	40.19	15
	.10		.21		.31		.41		.51		.61		
16	40.30	40.31	1 20.61	40.30	2 0.91	40.30	2 41.21	40.30	3 21.51	40.29	4 1.80	40.29	16
	.11		.20		.31		.41		.51		.62		
17	40.41	40.40	1 20.81	40.41	2 1.22	40.40	2 41.62	40.40	3 22.02	40.40	4 2.42	40.39	17
	.10		.21		.31		.41		.52		.62		
18	40.51	40.51	1 21.02	40.51	2 1.53	40.50	2 42.03	40.51	3 22.54	40.50	4 3.04	40.49	18
	.10		.21		.31		.42		.51		.62		
19	40.61	40.62	1 21.23	40.61	2 1.84	40.61	2 42.45	40.60	3 23.05	40.61	4 3.66	40.60	19
	.11		.21		.31		.41		.53		.62		
20	40.72	40.72	1 21.44	40.71	2 2.15	40.71	2 42.86	40.72	3 23.58	40.70	4 4.28	40.71	20
	.10		.20		.32		.42		.52		.63		
21	40.82	40.82	1 21.64	40.83	2 2.47	40.81	2 43.28	40.82	3 24.10	40.81	4 4.91	40.81	21
	.11		.21		.31		.42		.52		.63		
22	40.93	40.92	1 21.85	40.93	2 2.78	40.92	2 43.70	40.92	3 24.62	40.92	4 5.54	40.91	22
	.10		.22		.32		.43		.53		.64		
23	41.03	41.04	1 22.07	41.03	2 3.10	41.03	2 44.13	41.02	3 25.15	41.03	4 6.18	41.01	23
	.11		.21		.32		.42		.54		.63		
24	41.14	41.14	1 22.28	41.14	2 3.42	41.13	2 44.55	41.14	3 25.69	41.12	4 6.81	41.13	24
	.11		.21		.32		.43		.53		.64		
25	41.25	41.24	1 22.49	41.25	2 3.74	41.24	2 44.98	41.24	3 26.22	41.23	4 7.45	41.24	25
	.10		.22		.32		.43		.54		.65		
26	41.35	41.36	1 22.71	41.35	2 4.06	41.35	2 45.41	41.35	3 26.76	41.34	4 8.10	41.34	26

λ (unità 0s.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη′ = 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	1	1	1	1	1
0.2	0	0	0	1	1	1	1	1	2	2	2
0.3	0	0	1	1	1	1	2	2	2	3	3
0.4	0	0	1	1	2	2	2	3	3	4	4
0.5	0	0	1	1	2	2	3	3	4	4	5

Prontuari delle AR: Zona + 60°

η'	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		η'
	m s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	4 31.09	38.71	5 9.80	38.71	5 48.51	38.70	6 27.21	38.70	7 5.91	38.69	7 44.60	38.68	0
	.66		.76		.85		.95		1.04		1.14		
1	4 31.75	38.81	5 10.56	38.80	5 49.36	38.80	6 28.16	38.79	7 6.95	38.79	7 45.74	38.77	1
	.66		.76		.86		.95		1.05		1.14		
2	4 32.41	38.91	5 11.32	38.90	5 50.22	38.89	6 29.11	38.89	7 8.00	38.88	7 46.88	38.87	2
	.67		.76		.86		.96		1.05		1.14		
3	4 33.08	39.00	5 12.08	39.00	5 51.08	38.99	6 30.07	38.98	7 9.05	38.97	7 48.02	38.97	3
	.68		.77		.86		.96		1.06		1.16		
4	4 33.76	39.09	5 12.85	39.09	5 51.94	39.09	6 31.03	39.08	7 10.11	39.07	7 49.18	39.06	4
	.67		.77		.87		.96		1.06		1.15		
5	4 34.43	39.19	5 13.62	39.19	5 52.81	39.18	6 31.99	39.18	7 11.17	39.16	7 50.33	39.16	5
	.68		.78		.87		.97		1.06		1.17		
6	4 35.11	39.29	5 14.40	39.28	5 53.68	39.28	6 32.96	39.27	7 12.23	39.27	7 51.50	39.25	6
	.68		.78		.88		.98		1.08		1.17		
7	4 35.79	39.39	5 15.18	39.38	5 54.56	39.38	6 33.94	39.37	7 13.31	39.36	7 52.67	39.35	7
	.69		.78		.88		.98		1.07		1.17		
8	4 36.48	39.48	5 15.96	39.48	5 55.44	39.48	6 34.92	39.46	7 14.38	39.46	7 53.84	39.45	8
	.69		[illegible]		[illegible]		[illegible]		1.08		1.18		
9	4 37.17	39.58	5 16.75	39.58	5 56.33	39.57	6 35.90	39.56	7 15.46	39.56	7 55.02	39.55	9
	.69		.79		.89		.99		1.09		1.19		
10	4 37.86	39.68	5 17.54	39.68	5 57.22	39.67	6 36.89	39.66	7 16.55	39.66	7 56.21	39.65	10
	.70		.80		.89		.99		1.10		1.19		
11	4 38.56	39.78	5 18.34	39.77	5 58.11	39.77	6 37.88	39.77	7 17.65	39.75	7 57.40	39.75	11
	.70		.80		.90		1.00		1.10		1.20		
12	4 39.26	39.88	5 19.14	39.87	5 59.01	39.87	6 38.88	39.87	7 18.75	39.85	7 58.60	39.85	12
	.70		.80		.91		1.01		1.10		1.21		
13	4 39.96	39.98	5 19.94	39.98	5 59.92	39.97	6 39.89	39.96	7 19.85	39.96	7 59.81	39.94	13
	.71		.81		.91		1.01		1.11		1.21		
14	4 40.67	40.08	5 20.75	40.08	6 0.83	40.07	6 40.90	40.06	7 20.96	40.06	8 1.02	40.04	14
	.71		.81		.91		1.01		1.12		1.21		
15	4 41.38	40.18	5 21.56	40.18	6 1.74	40.17	6 41.91	40.17	7 22.08	40.15	8 2.23	40.15	15
	.71		.82		.92		1.02		1.12		1.23		
16	4 42 09	40.29	5 22.38	40.28	6 2.66	40.27	6 42.93	40.27	7 23.20	40.26	8 3.46	40.25	16
	.72		.82		.92		1.02		1.12		1.23		
17	4 42.81	40.39	5 23.20	40.38	6 3.58	40.37	6 43.95	40.37	7 24.32	40.37	8 4.69	40.35	17
	.72		.82		.93		1.04		1.14		1.23		
18	4 43.53	40.49	5 24.02	40.49	6 4.51	40.48	6 44.99	40.47	7 25.46	40.46	8 5.92	40.46	18
	.73		.83		.93		1.03		1.13		1.24		
19	4 44.26	40.59	5 24.85	40.59	6 5.44	40.58	6 46.02	40.57	7 26.59	40.57	8 7.16	40.56	19
	.73		.83		.94		1.04		1.15		1.25		
20	4 44.99	40.69	5 25.68	40.70	6 6.38	40.68	6 47.06	40.68	7 27.74	40.67	8 8.41	40.66	20
	.73		.84		.94		1.05		1.15		1.26		
21	4 45.72	40.80	5 26.52	40.80	6 7.32	40.79	6 48.11	40.78	7 28.89	40.78	8 9.67	40.76	21
	.73		.84		.94		1.05		1.16		1.26		
22	4 46.45	40.91	5 27.36	40.90	6 8.26	40.90	6 49.16	40.89	7 30.05	40.88	8 10.93	40.87	22
	.74		.85		.95		1.05		1.16		1.26		
23	4 47.19	41.02	5 28.21	41.00	6 9.21	41.00	6 50.21	41.00	7 31.21	40.98	8 12.19	40.98	23
	.75		.85		.96		1.07		1.17		1.28		
24	4 47.94	41.12	5 29.06	41.11	6 10.17	41.11	6 51.28	41.10	7 32.38	41.09	8 13.47	41.08	24
	.75		.85		.96		1.06		1.17		1.28		
25	4 48.69	41.22	5 29.91	41.22	6 11.13	41.21	6 52.34	41.21	7 33.55	41.20	8 14.75	41.19	25
	.75		.86		.97		1.08		1.18		1.29		
26	4 49.44	41.33	5 30.77	41.33	6 12.10	41.32	6 53.42	41.31	7 34.73	41.31	8 16.04	41.29	26

λ (unità 0ˢ.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη' = 0.5	0	0	1	1	2	2	3	3	4	4	5
0.6	0	1	1	2	2	3	4	4	5	5	6
0.7	0	1	1	2	3	3	4	5	6	6	7
0.8	0	1	2	2	3	4	5	6	6	7	8
0.9	0	1	2	3	4	4	5	6	7	8	9
1.0	0	1	2	3	4	5	6	7	8	9	10

Prontuari delle AR: Zona +59°

η′	ξ = 1	Δ		ξ = 2	Δ		ξ = 3	Δ		ξ = 4	Δ		ξ = 5	Δ		ξ = 6	Δ		η′
	s		s	m s		s	m s		s	m s		s	m s		s	m s		s	
0	37.65	.09	37.64	1 15.29	.18	37.65	1 52.94	.27	37.64	2 30.58	.36	37.64	3 8.22	.45	37.64	3 45.86	.54	37.64	0
1	37.74	.08	37.73	1 15.47	.18	37.74	1 53.21	.26	37.73	2 30.94	.35	37.73	3 8.67	.44	37.73	3 46.40	.53	37.72	1
2	37.82	.09	37.83	1 15.65	.18	37.82	1 53.47	.27	37.82	2 31.29	.36	37.82	3 9.11	.45	37.82	3 46.93	.54	37.81	2
3	37.91	.09	37.92	1 15.83	.18	37.91	1 53.74	.27	37.91	2 31.65	.36	37.91	3 9.56	.45	37.91	3 47.47	.53	37.90	3
4	38.00	.09	38.01	1 16.01	.18	38.00	1 54.01	.27	38.00	2 32.01	.36	38.00	3 10 01	.45	37.99	3 48.00	.55	38.00	4
5	38.09	.09	38.10	1 16.19	.18	38.09	1 54.28	.27	38.09	2 32.37	.36	38.09	3 10.46	.45	38.09	3 48.55	.54	38.08	5
6	38.18	.09	38.19	1 16.37	.18	38.18	1 54.55	.28	38.18	2 32.73	.37	38.18	3 10.91	.46	38.18	3 49.09	.55	38.17	6
7	38.27	.10	38.28	1 16.55	.18	38.28	1 54.83	.27	38.27	2 33.10	.36	38.27	3 11.37	.46	38.27	3 49.64	.55	38.26	7
8	38.37	.09	38.36	1 16.73	.19	38.37	1 55.10	.28	38.36	2 33.46	.37	38.37	3 11.83	.46	38.36	3 50.19	.55	38.35	8
9	38.46	.09	38.46	1 16.92	.18	38.46	1 55.38	.27	38.45	2 33.83	.37	38.46	3 12.29	.46	38.45	3 50.74	.55	38.44	9
10	38.55	.09	38.55	1 17.10	.19	38.55	1 55.65	.28	38.55	2 34.20	.37	38.55	3 12.75	.46	38.54	3 51.29	.56	38.54	10
11	38.64	.10	38.65	1 17.29	.19	38.64	1 55.93	.28	38.64	2 34.57	.38	38.64	3 13.21	.47	38.64	3 51.85	.56	38.63	11
12	38.74	.09	38.74	1 17.48	.18	38.73	1 56.21	.28	38.74	2 34.95	.37	38.73	3 13.68	.47	38.73	3 52.41	.56	38.72	12
13	38.83	.10	38.83	1 17.66	.19	38.83	1 56.49	.29	38.83	2 35.32	.38	38.83	3 14.15	.47	38.82	3 52.97	.57	38.82	13
14	38.93	.09	38.92	1 17.85	.19	38.93	1 56.78	.28	38.92	2 35.70	.38	38.92	3 14.62	.47	38.92	3 53.54	.56	38.91	14
15	39.02	.10	39.02	1 18.04	.19	39.02	1 57.06	.29	39.02	2 36.08	.38	39.01	3 15.09	.48	39.01	3 54.10	.58	39.01	15
16	39.12	.09	39.11	1 18.23	.19	39.12	1 57.35	.28	39.11	2 36.46	.38	39.11	3 15 57	.48	39.11	3 54.68	.57	39.10	16
17	39.21	.10	39.21	1 18.42	.19	39.21	1 57.63	.20	39.21	2 36.84	.38	39.21	3 16.05	.48	39.20	3 55.25	.57	39.20	17
18	39.31	.09	39.30	1 18.61	.20	39.31	1 57.92	.29	39.30	2 37.22	.39	39.31	3 16.53	.48	39.29	3 55.82	.58	39.30	18
19	39.40	.10	39.41	1 18.81	.19	39.40	1 58.21	.29	39.40	2 37.61	.39	39.40	3 17.01	.48	39.39	3 56.40	.59	39.39	19
20	39.50	.10	39.50	1 19.00	.20	39.50	1 58.50	.29	39.50	2 38.00	.39	39.49	3 17.49	.49	39.50	3 56.99	.58	39.48	20
21	39.60	.10	39.60	1 19.20	.19	39.59	1 58.79	.30	39.60	2 38.39	.39	39.59	3 17.98	.49	39.59	3 57.57	.59	39.58	21
22	39.70	.10	39.69	1 19.39	.20	39.70	1 59.09	.29	39.69	2 38.78	.39	39.69	3 18.47	.49	39.69	3 58.16	.59	39.68	22
23	39.80	.09	39.79	1 19.59	.20	39.79	1 59.38	.30	39.79	2 39.17	.40	39.79	3 18.96	.50	39.79	3 58.75	.59	39.78	23
24	39.89	.10	39.90	1 19.79	.20	39.89	1 59.68	.30	39.89	2 39.57	.40	39.89	3 19.46	.49	39.88	3 59.34	.60	39.88	24
25	39.99	.10	40.00	1 19.99	.20	39.99	1 59.98	.30	39.99	2 39.97	.40	39.98	3 19.95	.50	39.99	3 59.94	.60	39.98	25
26	40.09		40.10	1 20.19		40.09	2 0.28		40.09	2 40.37		40.08	3 20.45		40.09	4 0.54		40.08	26

λ (unità 0s.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη′ = 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	1	1	1	1	1
0.2	0	0	0	1	1	1	1	1	1	2	2
0.3	0	0	1	1	1	1	2	2	2	2	3
0.4	0	0	1	1	1	2	2	3	3	3	4
0.5	0	0	1	1	2	2	3	3	4	4	4

η'	$\xi = 7$ (m s)	Δ	s	$\xi = 8$ (m s)	Δ	s	$\xi = 9$ (m s)	Δ	s
0	4 23.50	.62	37.63	5 1.13	.71	37.63	5 38.76	.79	37.62
1	4 24.12	.62	37.72	5 1.84	.71	37.71	5 39.55	.81	37.71
2	4 24.74	.63	37.81	5 2.55	.72	37.81	5 40.36	.80	37.79
3	4 25.37	.63	37.90	5 3.27	.71	37.89	5 41.16	.81	37.89
4	4 26.00	.63	37.98	5 3.98	.73	37.99	5 41.97	.81	37.97
5	4 26.63	.63	38.08	5 4.71	.72	38.07	5 42.78	.81	38.07
6	4 27.26	.64	38.17	5 5.43	.73	38.16	5 43.59	.82	38.16
7	4 27.90	.64	38.26	5 6.16	.73	38.25	5 44.41	.83	38.25
8	4 28.54	.64	38.35	5 6.89	.74	38.35	5 45.24	.82	38.34
9	4 29.18	.65	38.45	5 7.63	.73	38.43	5 46.06	.83	38.44
10	4 29.83	.65	38.53	5 8.36	.75	38.53	5 46.89	.84	38.53
11	4 30.48	.65	38.63	5 9.11	.74	38.62	5 47.73	.84	38.62
12	4 31.13	.66	38.72	5 9.85	.75	38.72	5 48.57	.84	38.71
13	4 31.79	.66	38.81	5 10.60	.76	38.81	5 49.41	.85	38.81
14	4 32.45	.66	38.91	5 11.36	.75	38.90	5 50.26	.85	38.90
15	4 33.11	.67	39.00	5 12.11	.77	39.00	5 51.11	.86	38.99
16	4 33.78	.67	39.10	5 12.88	.76	39.09	5 51.97	.86	39.09
17	4 34.45	.67	39.19	5 13.64	.77	39.19	5 52.83	.86	39.18
18	4 35.12	.67	39.29	5 14.41	.77	39.28	5 53.69	.87	39.28
19	4 35.79	.68	39.39	5 15 18	.78	39.38	5 54.56	.87	39.38
20	4 36.47	.68	39.49	5 15.96	.78	39.47	5 55.43	.88	39.47
21	4 37.15	.69	39.59	5 16.74	.78	39.57	5 56.31	.88	39.57
22	4 37.84	.69	39.68	5 17.52	.79	39.67	5 57.19	.89	39.67
23	4 38.53	.69	39.78	5 18.31	.79	39.77	5 58.08	.89	39.76
24	4 39.22	.70	39.88	5 19.10	.79	39.87	5 58.97	.89	39.86
25	4 39.92	.70	39.97	5 19.89	.80	39.97	5 59.86	.90	39.96
26	4 40.62		40.07	5 20.69		40.07	6 0.76		40.06

η'	$\xi = 10$ (m s)	Δ	s	$\xi = 11$ (m s)	Δ	s	$\xi = 12$ (m s)	Δ	s	η'
0	6 16 38	.88	37.61	6 53.99	.98	37.62	7 31.61	1.06	37.60	0
1	6 17.26	.89	37.71	6 54.97	.98	37.70	7 32.67	1.06	37.69	1
2	6 18.15	.90	37.80	6 55.95	.98	37.78	7 33.73	1.08	37.78	2
3	6 19 05	.89	37.88	6 56.93	.99	37.88	7 34.81	1.08	37.87	3
4	6 19.94	.91	37.98	6 57.92	.99	37.97	7 35.89	1.07	37.95	4
5	6 20.85	.90	38.06	6 58.91	.99	38.05	7 36.96	1.09	38.05	5
6	6 21.75	.91	38.15	6 59.90	1.01	38.15	7 38.05	1.09	38.14	6
7	6 22.66	.92	38.25	7 0.91	1.00	38.23	7 39.14	1.10	38.23	7
8	6 23.58	.92	38.33	7 1.91	1.01	38.33	7 40.24	1.10	38.32	8
9	6 24.50	.92	38.42	7 2.92	1.02	38.42	7 41.34	1.11	38.42	9
10	6 25.42	.93	38.52	7 3.94	1.02	38.51	7 42.45	1.11	38.51	10
11	6 26.35	.93	38.61	7 4.96	1.03	38.60	7 43.56	1.12	38.60	11
12	6 27.28	.94	38.71	7 5.99	1.03	38.69	7 44.68	1.13	38.69	12
13	6 28.22	.94	38.80	7 7.02	1.03	38.79	7 45.81	1.13	38.78	13
14	6 29.16	.94	38.89	7 8.05	1.04	38.89	7 46.94	1.13	38.88	14
15	6 30.10	.96	38.99	7 9.09	1.05	38.98	7 48.07	1.14	38.97	15
16	6 31.06	.95	39.08	7 10.14	1.05	39.07	7 49.21	1.15	39.07	16
17	6 32.01	.96	39.18	7 11.19	1.05	39.17	7 50.36	1.15	39.16	17
18	6 32.97	.97	39.27	7 12.24	1.07	39.27	7 51.51	1.16	39.26	18
19	6 33.94	.96	39.37	7 13.31	1.06	39.36	7 52.67	1.16	39.35	19
20	6 34.90	.98	39.47	7 14.37	1.07	39.46	7 53.83	1.17	39.45	20
21	6 35.88	.98	39.56	7 15.44	1.08	39.56	7 55.00	1.17	39.55	21
22	6 36.86	.98	39.66	7 16.52	1.08	39.65	7 56.17	1.18	39.65	22
23	6 37.84	.99	39.76	7 17.60	1.09	39.75	7 57.35	1.19	39.74	23
24	6 38.83	.99	39.86	7 18.69	1.09	39.85	7 58.54	1.19	39.84	24
25	6 39.82	1.00	39.96	7 19.78	1.10	39.95	7 59.73	1.20	39.94	25
26	6 40.82		40.06	7 20.88		40.05	8 0.93		40.04	26

λ (unità 0s.01)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.5	0	0	1	1	2	2	3	3	4	4	4
0.6	0	1	1	2	2	3	3	4	4	5	5
0.7	0	1	1	2	3	3	4	4	5	6	6
0.8	0	1	1	2	3	4	4	5	6	6	7
0.9	0	1	2	2	3	4	5	6	6	7	8
1.0	0	1	2	3	4	4	5	6	7	8	9

Prontuari delle AR: Zona + 58°

η'	ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η'
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	36.63	36.64	1 13.27	36.63	1 49.90	36.63	2 26.53	36.62	3 3.15	36.63	3 39.78	36.62	0
	.09		.16		.25		.33		.42		.50		
1	36.72	36.71	1 13.43	36.72	1 50.15	36.71	2 26.86	36.71	3 3.57	36.71	3 40.28	36.70	1
	.08		.17		.25		.33		.42		.50		
2	36.80	36.80	1 13.60	36.80	1 50.40	36.79	2 27.19	36.80	3 3.99	36.79	3 40.78	36.79	2
	.08		.17		.25		.34		.41		.50		
3	36.88	36.89	1 13.77	36.88	1 50.65	36.88	2 27.53	36.87	3 4.40	36.88	3 41.28	36.87	3
	.09		.16		.25		.33		.42		.50		
4	36.97	36.96	1 13.93	36.97	1 50.90	36.96	2 27.86	36.96	3 4.82	36.96	3 41.78	36.96	4
	.08		.17		.25		.34		.43		.51		
5	37.05	37.05	1 14.10	37.05	1 51.15	37.05	2 28.20	37.05	3 5.25	37.04	3 42.29	37.04	5
	.09		.17		.26		.34		.42		.51		
6	37.14	37.13	1 14.27	37.14	1 51.41	37.13	2 28.54	37.13	3 5.67	37.13	3 42.80	37.12	6
	.08		.17		.25		.34		.43		.51		
7	37.22	37.22	1 14.44	37.22	1 51.66	37.22	2 28.88	37.22	3 6.10	37.21	3 43.31	37.21	7
	.09		.17		.26		.34		.43		.51		
8	37.31	37.30	1 14.61	37.31	1 51.92	37.30	2 29.22	37.31	3 6.53	37.29	3 43.82	37.30	8
	.08		.18		.26		.35		.43		.52		
9	37.39	37.40	1 14.79	37.39	1 52.18	37.39	2 29.57	37.39	3 6.96	37.38	3 44.34	37.38	9
	.09		.17		.26		.34		.43		.52		
10	37.48	37.48	1 14.96	37.48	1 52.44	37.47	2 29.91	37.48	3 7.39	37.47	3 44.86	37.47	10
	.09		.17		.26		.35		.43		.52		
11	37.57	37.56	1 15.13	37.57	1 52.70	37.56	2 30.26	37.56	3 7.82	37.56	3 45.38	37.55	11
	.08		.18		.26		.35		.44		.52		
12	37.65	37.66	1 15.31	37.65	1 52.96	37.65	2 30.61	37.65	3 8.26	37.64	3 45.90	37.65	12
	.09		.17		.26		.35		.44		.53		
13	37.74	37.74	1 15.48	37.74	1 53.22	37.74	2 30.96	37.74	3 8.70	37.73	3 46.43	37.73	13
	.09		.18		.27		.35		.44		.53		
14	37.83	37.83	1 15.66	37.83	1 53.49	37.82	2 31.31	37.83	3 9.14	37.82	3 46.96	37.81	14
	.09		.18		.26		.36		.44		.53		
15	37.92	37.92	1 15.84	37.91	1 53.75	37.92	2 31.67	37.91	3 9.58	37.91	3 47.49	37.90	15
	.09		.17		.27		.35		.44		.53		
16	38.01	38.00	1 16.01	38.00	1 54.02	38.00	2 32.02	38.00	3 10.02	38.00	3 48.02	38.00	16
	.09		.18		.27		.36		.45		.54		
17	38.10	38.09	1 16.19	38.10	1 54.29	38.09	2 32.38	38.09	3 10.47	38.09	3 48.56	38.08	17
	.09		.18		.27		.36		.45		.54		
18	38.19	38.18	1 16.37	38.19	1 54.56	38.18	2 32.74	38.18	3 10.92	38.18	3 49.10	38.17	18
	.09		.18		.27		.36		.45		.54		
19	38.28	38.27	1 16.55	38.28	1 54.83	38.27	2 33.10	38.27	3 11.37	38.27	3 49.64	38.26	19
	.09		.18		.27		.36		.45		.54		
20	38.37	38.36	1 16.73	38.37	1 55.10	38.36	2 33.46	38.36	3 11.82	38.36	3 50.18	38.35	20
	.09		.18		.27		.36		.46		.55		
21	38.46	38.45	1 16.91	38.46	1 55.37	38.45	2 33.82	38.46	3 12.28	38.45	3 50.73	38.44	21
	.09		.19		.27		.37		.45		.54		
22	38.55	38.55	1 17.10	38.54	1 55.64	38.55	2 34.19	38.54	3 12.73	38.54	3 51.27	38.54	22
	.09		.18		.28		.37		.46		.55		
23	38.64	38.64	1 17.28	38.64	1 55.92	38.64	2 34.56	38.63	3 13.19	38.63	3 51.82	38.63	23
	.09		.19		.28		.37		.46		.56		
24	38.73	38.74	1 17.47	38.73	1 56.20	38.73	2 34.93	38.72	3 13.65	38.73	3 52.38	38.72	24
	.10		.18		.28		.37		.47		.55		
25	38.83	38.82	1 17.65	38.83	1 56.48	38.82	2 35.30	38.82	3 14.12	38.81	3 52.93	38.82	25
	.09		.19		.27		.37		.46		.56		
26	38.92	38.92	1 17.84	38.91	1 56.75	38.92	2 35.67	38.91	3 14.58	38.91	3 53.49	38.91	26

λ (unità 0ˢ.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη' = 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	1	1	1	1	1
0.2	0	0	0	1	1	1	1	1	1	2	2
0.3	0	0	1	1	1	1	2	2	2	2	3
0.4	0	0	1	1	1	2	2	3	3	3	4
0.5	0	0	1	1	2	2	3	3	4	4	4

η′	ξ = 7 (m s)	s	ξ = 8 (m s)	s	ξ = 9 (m s)	s	ξ = 10 (m s)	s	ξ = 11 (m s)	s	ξ = 12 (m s)	s	η′
0	4 16.40	36.62	4 53.02	36.62	5 29.64	36.61	6 6.25	36.60	6 42.85	36.60	7 19.45	36.59	0
	.58		.66		.74		.82		.91		.99		
1	4 16.98	36.70	4 53.68	36.70	5 30.38	36.69	6 7.07	36.69	6 43.76	36.68	7 20.44	36.68	1
	.59		.67		.75		.83		.92		1.00		
2	4 17.57	36.78	4 54.35	36.78	5 31.13	36.77	6 7.90	36.78	6 44.68	36.76	7 21.44	36.76	2
	.58		.67		.75		.84		.92		1.01		
3	4 18.15	36.87	4 55.02	36.86	5 31.88	36.86	6 8.74	36.86	6 45.60	36.85	7 22.45	36.84	3
	.59		.67		.76		.84		.92		1.00		
4	4 18.74	36.95	4 55.69	36.95	5 32.64	36.94	6 9.58	36.94	6 46.52	36.93	7 23.45	36.93	4
	.59		.68		.76		.85		.93		1.02		
5	4 19.33	37.04	4 56.37	37.03	5 33.40	37.03	6 10.43	37.02	6 47.45	37.02	7 24.47	37.00	5
	.59		.67		.76		.84		.93		1.01		
6	4 19.92	37.12	4 57.04	37.12	5 34.16	37.11	6 11.27	37.11	6 48.38	37.10	7 25.48	37.10	6
	.60		.69		.77		.86		.94		1.02		
7	4 20.52	37.21	4 57.73	37.20	5 34.93	37.20	6 12.13	37.19	6 49.32	37.18	7 26.50	37.18	7
	.60		.68		.77		.85		.94		1.03		
8	4 21.12	37.29	4 58.41	37.29	5 35.70	37.28	6 12.98	37.28	6 50.26	37.27	7 27.53	37.27	8
	.60		.69		.77		.86		.95		1.03		
9	4 21.72	37.38	4 59.10	37.37	5 36.47	37.37	6 13.84	37.37	6 51.21	37.35	7 28.56	37.35	9
	.61		.69		.78		.86		.94		1.04		
10	4 22.33	37.46	4 59.79	37.46	5 37.25	37.45	6 14.70	37.45	6 52.15	37.45	7 29.60	37.43	10
	.60		.70		.78		.87		.96		1.04		
11	4 22.93	37.56	5 0.49	37.54	5 38.03	37.54	6 15.57	37.54	6 53.11	37.53	7 30.64	37.52	11
	.62		.69		.79		.88		.96		1.04		
12	4 23.55	37.63	5 1.18	37.64	5 38.82	37.63	6 16.45	37.62	6 54.07	37.61	7 31.68	37.62	12
	.61		.70		.79		.87		.96		1.06		
13	4 24.16	37.72	5 1.88	37.73	5 39.61	37.71	6 17.32	37.71	6 55.03	37.71	7 32.74	37.69	13
	.61		.71		.79		.88		.97		1.05		
14	4 24.77	37.82	5 2.59	37.81	5 40.40	37.80	6 18.20	37.80	6 56.00	37.79	7 33.79	37.79	14
	.62		.71		.79		.89		.97		1.06		
15	4 25.39	37.91	5 3.30	37.89	5 41.19	37.90	6 19.09	37.88	6 56.97	37.88	7 34.85	37.88	15
	.63		.71		.80		.88		.98		1.07		
16	4 26.02	37.99	5 4.01	37.98	5 41.99	37.98	6 19.97	37.98	6 57.95	37.97	7 35.92	37.96	16
	.62		.71		.81		.90		.98		1.07		
17	4 26.64	38.08	5 4.72	38.08	5 42.80	38.07	6 20.87	38.06	6 58.93	38.06	7 36.99	38.05	17
	.63		.72		.80		.89		.99		1.07		
18	4 27.27	38.17	5 5.44	38.16	5 43.60	38.16	6 21.76	38.16	6 59.92	38.14	7 38.06	38.14	18
	.63		.72		.81		.90		.99		1.08		
19	4 27.90	38.26	5 6.16	38.25	5 44.41	38.25	6 22.66	38.25	7 0.91	38.23	7 39.14	38.23	19
	.63		.72		.82		.91		.99		1.09		
20	4 28.53	38.35	5 6.88	38.35	5 45.23	38.34	6 23.57	38.33	7 1.90	38.33	7 40.23	38.32	20
	.64		.73		.82		.91		1.00		1.09		
21	4 29.17	38.44	5 7.61	38.44	5 46.05	38.43	6 24.48	38.42	7 2.90	38.42	7 41.32	38.41	21
	.64		.73		.82		.91		1.01		1.09		
22	4 29.81	38.53	5 8.34	38.53	5 46.87	38.52	6 25.39	38.52	7 3.91	38.50	7 42.41	38.51	22
	.64		.73		.82		.92		1.00		1.11		
23	4 30.45	38.62	5 9.07	38.62	5 47.69	38.62	6 26.31	38.60	7 4.91	38.61	7 43.52	38.59	23
	.65		.74		.83		.92		1.02		1.10		
24	4 31.10	38.71	5 9.81	38.71	5 48.52	38.71	6 27.23	38.70	7 5.93	38.69	7 44.62	38.69	24
	.65		.75		.84		.93		1.02		1.12		
25	4 31.75	38.81	5 10.56	38.80	5 49.36	38.80	6 28.16	38.79	7 6.95	38.79	7 45.74	38.77	25
	.65		.74		.84		.93		1.02		1.11		
26	4 32.40	38.90	5 11.30	38.90	5 50.20	38.89	6 29.09	38.88	7 7.97	38.88	7 46.85	38.87	26

λ (unità 0s.01)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.5	0	0	1	1	2	2	3	3	4	4	4
0.6	0	1	1	2	2	3	3	4	4	5	5
0.7	0	1	1	2	3	3	4	4	5	6	6
0.8	0	1	1	2	3	4	4	5	6	6	7
0.9	0	1	2	2	3	4	5	6	6	7	8
1.0	0	1	2	3	4	4	5	6	7	8	9

η′	ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	35.68	35.68	1 11.36	35.69	1 47.05	35.68	2 22.73	35.67	2 58.40	35.68	3 34.08	35.67	0
	.08		.16		.23		.31		.39		.47		
1	35.76	35.76	1 11.52	35.76	1 47.28	35.76	2 23.04	35.75	2 58.79	35.76	3 34.55	35.74	1
	.08		.16		.23		.31		.39		.46		
2	35.84	35.84	1 11.68	35.83	1 47.51	35.84	2 23.35	35.83	2 59.18	35.83	3 35.01	35.83	2
	.08		.15		.24		.31		.40		.48		
3	35.92	35.91	1 11.83	35.92	1 47.75	35.91	2 23.66	35.92	2 59.58	35.91	3 35.49	35.90	3
	.08		.16		.24		.32		.39		.47		
4	36.00	35.99	1 11.99	36.00	1 47.99	35.99	2 23.98	35.99	2 59.97	35.99	3 35.96	35.98	4
	.08		.16		.23		.32		.40		.47		
5	36.08	36.07	1 12.15	36.07	1 48.22	36.08	2 24.30	36.07	3 0.37	36.06	3 36.43	36.07	5
	.07		.16		.24		.31		.39		.48		
6	36.15	36.16	1 12.31	36.15	1 48.46	36.15	2 24.61	36.15	3 0.76	36.15	3 36.91	36.14	6
	.08		.16		.24		.32		.40		.48		
7	36.23	36.24	1 12.47	36.23	1 48.70	36.23	2 24.93	36.23	3 1.16	36.23	3 37.39	36.22	7
	.08		.16		.24		.32		.40		.48		
8	36.31	36.32	1 12.63	36.31	1 48.94	36.31	2 25.25	36.31	3 1.56	36.31	3 37.87	36.31	8
	.09		.16		.24		.33		.41		.48		
9	36.40	36.39	1 12.79	36.39	1 49.18	36.40	2 25.58	36.39	3 1.97	36.38	3 38.35	36.39	9
	.08		.16		.25		.32		.40		.49		
10	36.48	36.47	1 12.95	36.48	1 49.43	36.47	2 25.90	36.47	3 2.37	36.47	3 38.84	36.47	10
	.08		.16		.24		.33		.41		.49		
11	36.56	36.55	1 13.11	36.56	1 49.67	36.56	2 26.23	36.55	3 2.78	36.55	3 39.33	36.54	11
	.08		.17		.25		.32		.41		.49		
12	36.64	36.64	1 13.28	36.64	1 49.92	36.63	2 26.55	36.64	3 3.19	36.63	3 39.82	36.63	12
	.08		.16		.24		.33		.41		.49		
13	36.72	36.72	1 13.44	36.72	1 50.16	36.72	2 26.88	36.72	3 3.60	36.71	3 40.31	36.71	13
	.08		.17		.25		.33		.41		.49		
14	36.80	36.81	1 13.61	36.80	1 50.41	36.80	2 27.21	36.80	3 4.01	36.79	3 40.80	36.80	14
	.09		.16		.25		.33		.41		.50		
15	36.89	36.88	1 13.77	36.89	1 50.66	36.88	2 27.54	36.88	3 4.42	36.88	3 41.30	36.88	15
	.08		.17		.25		.33		.42		.50		
16	36.97	36.97	1 13.94	36.97	1 50.91	36.96	2 27.87	36.97	3 4.84	36.96	3 41.80	36.96	16
	.08		.17		.25		.34		.42		.50		
17	37.05	37.06	1 14.11	37.05	1 51.16	37.05	2 28.21	37.05	3 5.26	37.04	3 42.30	37.04	17
	.09		.16		.25		.33		.42		.50		
18	37.14	37.13	1 14.27	37.14	1 51.41	37.13	2 28.54	37.14	3 5.68	37.12	3 42.80	37.13	18
	.08		.17		.25		.34		.42		.51		
19	37.22	37.22	1 14.44	37.22	1 51.66	37.22	2 28.88	37.22	3 6.10	37.21	3 43.31	37.21	19
	.09		.17		.26		.34		.42		.51		
20	37.31	37.30	1 14.61	37.31	1 51.92	37.30	2 29.22	37.30	3 6.52	37.30	3 43.82	37.29	20
	.08		.17		.25		.34		.43		.51		
21	37.39	37.39	1 14.78	37.39	1 52.17	37.39	2 29.56	37.39	3 6.95	37.38	3 44.33	37.38	21
	.09		.17		.26		.34		.42		.51		
22	37.48	37.47	1 14.95	37.48	1 52.43	37.47	2 29.90	37.47	3 7.37	37.47	3 44.84	37.47	22
	.08		.17		.26		.35		.43		.52		
23	37.56	37.56	1 15.12	37.57	1 52.69	37.56	2 30.25	37.55	3 7.80	37.56	3 45.36	37.55	23
	.09		.18		.26		.34		.43		.51		
24	37.65	37.65	1 15.30	37.65	1 52.95	37.64	2 30.59	37.64	3 8.23	37.64	3 45.87	37.64	24
	.09		.17		.26		.35		.44		.52		
25	37.74	37.73	1 15.47	37.74	1 53.21	37.73	2 30.94	37.73	3 8.67	37.72	3 46.39	37.73	25
	.08		.17		.26		.34		.43		.53		
26	37.82	37.82	1 15.64	37.83	1 53.47	37.81	2 31.28	37.82	3 9.10	37.82	3 46.92	37.81	26

λ (unità 0s.01)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη′ = 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	0	1	1	1	1
0.2	0	0	0	0	1	1	1	1	1	1	2
0.3	0	0	0	1	1	1	1	2	2	2	2
0.4	0	0	1	1	1	2	2	2	3	3	3
0.5	0	0	1	1	2	2	2	3	3	4	4

η'	$\xi = 7$ m s	s	$\xi = 8$ m s	s	$\xi = 9$ m s	s	$\xi = 10$ m s	s	$\xi = 11$ m s	s	$\xi = 12$ m s	s	η'
0	4 9.75	35.67	4 45.42	35.67	5 21.09	35.66	5 56.75	35.65	6 32.40	35.65	7 8.05	35.65	0
	.54		.62		.69		.77		.86		.94		
1	4 10.29	35.75	4 46.04	35.74	5 21.78	35.74	5 57.52	35.74	6 33.26	35.73	7 8.99	35.72	1
	.55		.63		.71		.78		.86		.93		
2	4 10.84	35.83	4 46.67	35.82	5 22.49	35.81	5 58.30	35.82	6 34.12	35.80	7 9.92	35.80	2
	.55		.63		.70		.79		.86		.95		
3	4 11.39	35.91	4 47.30	35.89	5 23.19	35.90	5 59.09	35.89	6 34.98	35.89	7 10.87	35.87	3
	.55		.63		.71		.79		.87		.94		
4	4 11.94	35.99	4 47.93	35.97	5 23.90	35.98	5 59.88	35.97	6 35.85	35.96	7 11.81	35.96	4
	.56		.63		.72		.79		.87		.95		
5	4 12.50	36.06	4 48.56	36.06	5 24.62	36.05	6 0.67	36.05	6 36.72	36.04	7 12.76	36.04	5
	.55		.63		.71		.79		.87		.95		
6	4 13.05	36.14	4 49.19	36.14	5 25.33	36.13	6 1.46	36.13	6 37.59	36.12	7 13.71	36.12	6
	.56		.64		.72		.80		.88		.96		
7	4 13.61	36.22	4 49.83	36.22	5 26.05	36.21	6 2.26	36.21	6 38.47	36.20	7 14.67	36.20	7
	.57		.65		.72		.80		.88		.96		
8	4 14.18	36.30	4 50.48	36.29	5 26.77	36.29	6 3.06	36.29	6 39.35	36.28	7 15.63	36.28	8
	.56		.64		.73		.81		.89		.97		
9	4 14.74	36.38	4 51.12	36.38	5 27.50	36.37	6 3.87	36.37	6 40.24	36.36	7 16.60	36.35	9
	.57		.65		.73		.81		.89		.97		
10	4 15.31	36.46	4 51.77	36.46	5 28.23	36.45	6 4.68	36.45	6 41.13	36.44	7 17.57	36.44	10
	.56		.65		.73		.81		.89		.97		
11	4 15.87	36.55	4 52.42	36.54	5 28.96	36.53	6 5.49	36.53	6 42.02	36.52	7 18.54	36.52	11
	.58		.65		.73		.82		.90		.98		
12	4 16.45	36.62	4 53.07	36.62	5 29.69	36.62	6 6.31	36.61	6 42.92	36.60	7 19.52	36.60	12
	.57		.66		.74		.82		.90		.99		
13	4 17.02	36.71	4 53.73	36.70	5 30.43	36.70	6 7.13	36.69	6 43.82	36.69	7 20.51	36.68	13
	.58		.66		.74		.82		.91		.99		
14	4 17.60	36.79	4 54.39	36.78	5 31.17	36.78	6 7.95	36.78	6 44.73	36.77	7 21.50	36.76	14
	.58		.66		.75		.83		.91		.99		
15	4 18.18	36.87	4 55.05	36.87	5 31.92	36.86	6 8.78	36.86	6 45.64	36.85	7 22.49	36.84	15
	.58		.66		.74		.83		.91		1.00		
16	4 18.76	36.95	4 55.71	36.95	5 32.66	36.95	6 9.61	36.94	6 46.55	36.94	7 23.49	36.92	16
	.58		.67		.76		.84		.92		1.00		
17	4 19.34	37.04	4 56.38	37.04	5 33.42	37.03	6 10.45	37.02	6 47.47	37.02	7 24.49	37.01	17
	.59		.67		.75		.83		.92		1.00		
18	4 19.93	37.12	4 57.05	37.12	5 34.17	37.11	6 11.28	37.11	6 48.39	37.10	7 25.49	37.10	18
	.59		.68		.76		.85		.93		1.01		
19	4 20.52	37.21	4 57.73	37.20	5 34.93	37.20	6 12.13	37.19	6 49.32	37.18	7 26.50	37.18	19
	.59		.67		.76		.84		.93		1.02		
20	4 21.11	37.29	4 58.40	37.29	5 35.69	37.28	6 12.97	37.28	6 50.25	37.27	7 27.52	37.26	20
	.60		.68		.77		.85		.93		1.02		
21	4 21.71	37.37	4 59.08	37.38	5 36.46	37.36	6 13.82	37.36	6 51.18	37.36	7 28.54	37.35	21
	.60		.69		.77		.86		.94		1.02		
22	4 22.31	37.46	4 59.77	37.46	5 37.23	37.45	6 14.68	37.44	6 52.12	37.44	7 29.56	37.44	22
	.60		.68		.77		.85		.95		1.03		
23	4 22.91	37.54	5 0.45	37.55	5 38.00	37.53	6 15.53	37.54	6 53.07	37.52	7 30.59	37.52	23
	.60		.69		.77		.87		.94		1.04		
24	4 23.51	37.63	5 1.14	37.63	5 38.77	37.63	6 16.40	37.61	6 54.01	37.62	7 31.63	37.60	24
	.61		.70		.78		.86		.96		1.03		
25	4 24.12	37.72	5 1.84	37.71	5 39.55	37.71	6 17.26	37.71	6 54.97	37.69	7 32.66	37.70	25
	.61		.69		.79		.87		.95		1.05		
26	4 24.73	37.80	5 2.53	37.81	5 40.34	37.79	6 18.13	37.79	6 55.92	37.79	7 33.71	37.78	26

λ (unità 0s.01)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.5	0	0	1	1	2	2	2	3	3	4	4
0.6	0	0	1	1	2	2	3	3	4	4	5
0.7	0	1	1	2	2	3	3	4	4	5	6
0.8	0	1	1	2	3	3	4	4	5	6	6
0.9	0	1	1	2	3	4	4	5	6	6	7
1.0	0	1	2	2	3	4	5	6	6	7	8

η'	$\xi = 1$	Δ		$\xi = 2$	Δ		$\xi = 3$	Δ		$\xi = 4$	Δ		$\xi = 5$	Δ		$\xi = 6$	Δ		η'
	s		s	m s		s	m s		s	m s		s	m s		s	m s		s	
0	34.79	.07	34.79	1 9.58	.15	34.79	1 44.37	.22	34.79	2 19.16	.29	34.78	2 53.94	.37	34.79	3 28.73	.44	34.78	0
1	34.86	.08	34.87	1 9.73	.14	34.86	1 44.59	.22	34.86	2 19.45	.29	34.86	2 54.31	.37	34.86	3 29.17	.44	34.85	1
2	34.94	.07	34.93	1 9.87	.15	34.94	1 44.81	.22	34.93	2 19.74	.30	34.94	2 54.68	.36	34.93	3 29.61	.44	34.92	2
3	35.01	.07	35.01	1 10.02	.15	35.01	1 45.03	.22	35.01	2 20.04	.30	35.00	2 55.04	.37	35.01	3 30.05	.44	35.00	3
4	35.08	.08	35.09	1 10.17	.15	35.08	1 45.25	.23	35.09	2 20.34	.29	35.07	2 55.41	.38	35.08	3 30.49	.45	35.08	4
5	35.16	.07	35.16	1 10.32	.15	35.16	1 45.48	.22	35.15	2 20.63	.30	35.16	2 55.79	.37	35.15	3 30.94	.45	35.15	5
6	35.23	.08	35.24	1 10.47	.15	35.23	1 45.70	.22	35.23	2 20.93	.30	35.23	2 56.16	.37	35.23	3 31.39	.45	35.22	6
7	35.31	.07	35.31	1 10.62	.15	35.30	1 45.92	.23	35.31	2 21.23	.30	35.30	2 56.53	.38	35.31	3 31.84	.45	35.30	7
8	35.38	.08	35.39	1 10.77	.15	35.38	1 46.15	.23	35.38	2 21.53	.31	35.38	2 56.91	.38	35.38	3 32.29	.45	35.37	8
9	35.46	.08	35.46	1 10.92	.15	35.46	1 46.38	.23	35.46	2 21.84	.30	35.45	2 57.29	.38	35.45	3 32.74	.46	35.45	9
10	35.54	.07	35.53	1 11.07	.15	35.54	1 46.61	.22	35.53	2 22.14	.30	35.53	2 57.67	.38	35.53	3 33.20	.46	35.52	10
11	35.61	.08	35.61	1 11.22	.16	35.61	1 46.83	.23	35.61	2 22.44	.31	35.61	2 58.05	.38	35.61	3 33.66	.46	35.60	11
12	35.69	.08	35.69	1 11.38	.15	35.68	1 47.06	.24	35.69	2 22.75	.31	35.68	2 58.43	.39	35.69	3 34.12	.46	35.67	12
13	35.77	.07	35.76	1 11.53	.16	35.77	1 47.30	.23	35.76	2 23.06	.31	35.76	2 58.82	.39	35.76	3 34.58	.46	35.75	13
14	35.84	.08	35.85	1 11.69	.15	35.84	1 47.53	.23	35.84	2 23.37	.31	35.84	2 59.21	.38	35.83	3 35.04	.47	35.83	14
15	35.92	.08	35.92	1 11.84	.16	35.92	1 47.76	.23	35.92	2 23.68	.31	35.91	2 59.59	.39	35.92	3 35.51	.46	35.91	15
16	36.00	.08	36.00	1 12.00	.15	35.99	1 47.99	.24	36.00	2 23.99	.31	35.99	2 59.98	.40	35.99	3 35.97	.47	35.99	16
17	36.08	.08	36.07	1 12.15	.16	36.08	1 48.23	.24	36.07	2 24.30	.32	36.08	3 0.38	.39	36.06	3 36.44	.48	36.07	17
18	36.16	.07	36.15	1 12.31	.16	36.16	1 48.47	.23	36.15	2 24.62	.31	36.15	3 0.77	.39	36.15	3 36.92	.47	36.14	18
19	36.23	.08	36.24	1 12.47	.16	36.23	1 48.70	.24	36.23	2 24.93	.32	36.23	3 1.16	.40	36.23	3 37.39	.48	36.22	19
20	36.31	.08	36.32	1 12.63	.16	36.31	1 48.94	.24	36.31	2 25.25	.32	36.31	3 1.56	.40	36.31	3 37.87	.47	36.30	20
21	36.39	.08	36.40	1 12.79	.16	36.39	1 49.18	.24	36.39	2 25.57	.32	36.39	3 1.96	.40	36.38	3 38.34	.48	36.39	21
22	36.47	.08	36.48	1 12.95	.16	36.47	1 49.42	.24	36.47	2 25.89	.32	36.47	3 2.36	.40	36.46	3 38.82	.48	36.47	22
23	36.55	.08	36.56	1 13.11	.16	36.55	1 49.66	.24	36.55	2 26.21	.32	36.55	3 2.76	.40	36.54	3 39.30	.49	36.55	23
24	36.63	.09	36.64	1 13.27	.16	36.63	1 49.90	.25	36.63	2 26.53	.33	36.63	3 3.16	.41	36.63	3 39.79	.49	36.62	24
25	36.72	.08	36.71	1 13.43	.16	36.72	1 50.15	.24	36.71	2 26.86	.32	36.71	3 3.57	.40	36.71	3 40.28	.48	36.70	25
26	36.80		36.79	1 13.59		36.80	1 50.39		36.79	2 27.18		36.79	3 3.97		36.79	3 40.76		36.79	26

λ (unità $0^s.01$)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	0	1	1	1	1
0.2	0	0	0	0	1	1	1	1	1	1	2
0.3	0	0	0	1	1	1	1	2	2	2	2
0.4	0	0	1	1	1	2	2	2	3	3	3
0.5	0	0	1	1	2	2	2	3	3	4	4

Prontuari delle AR: Zona + 56°

η'	$\xi = 7$		$\xi = 8$		$\xi = 9$		$\xi = 10$		$\xi = 11$		$\xi = 12$		η'
	m s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	4 3.51	34.78	4 38.29	34.77	5 13.06	34.77	5 47.83	34.77	6 22.60	34.76	6 57.36	34.75	0
	.51		.58		.66		.73		.80		.87		
1	4 4.02	34.85	4 38.87	34.85	5 13.72	34.84	5 48.56	34.84	6 23.40	34.83	6 58.23	34.83	1
	.51		.59		.66		.74		.81		.89		
2	4 4.53	34.93	4 39.46	34.92	5 14.38	34.92	5 49.30	34.91	6 24.21	34.91	6 59.12	34.90	2
	.52		.59		.66		.73		.81		.88		
3	4 5.05	35.00	4 40.05	34.99	5 15.04	34.99	5 50.03	34.99	6 25.02	34.98	7 0.00	34.97	3
	.52		.59		.67		.74		.81		.89		
4	4 5.57	35.07	4 40.64	35.07	5 15.71	35.06	5 50.77	35.06	6 25.83	35.06	7 0.89	35.05	4
	.52		.60		.67		.75		.82		.89		
5	4 6.09	35.15	4 41.24	35.14	5 16.38	35.14	5 51.52	35.13	6 26.65	35.13	7 1.78	35.12	5
	.52		.59		.67		.74		.82		.89		
6	4 6.61	35.22	4 41.83	35.22	5 17.05	35.21	5 52.26	35.21	6 27.47	35.20	7 2.67	35.20	6
	.53		.60		.67		.75		.82		.90		
7	4 7.14	35.29	4 42.43	35.29	5 17.72	35.29	5 53.01	35.28	6 28.29	35.28	7 3.57	35.28	7
	.52		.60		.68		.75		.83		.91		
8	4 7.66	35.37	4 43.03	35.37	5 18.40	35.36	5 53.76	35.36	6 29.12	35.36	7 4.48	35.34	8
	.53		.61		.68		.76		.84		.90		
9	4 8.19	35.45	4 43.64	35.44	5 19.08	35.44	5 54.52	35.44	6 29.96	35.42	7 5.38	35.43	9
	.53		.61		.69		.76		.83		.91		
10	4 8.72	35.53	4 44.25	35.52	5 19.77	35.51	5 55.28	35.51	6 30.79	35.50	7 6.29	35.50	10
	.54		.61		.68		.76		.84		.92		
11	4 9.26	35.60	4 44.86	35.59	5 20.45	35.59	5 56.04	35.59	6 31.63	35.58	7 7.21	35.57	11
	.53		.61		.69		.77		.84		.92		
12	4 9.79	35.68	4 45.47	35.67	5 21.14	35.67	5 56.81	35.66	6 32.47	35.66	7 8.13	35.65	12
	.54		.62		.69		.77		.85		.92		
13	4 10.33	35.76	4 46.09	35.74	5 21.83	35.75	5 57.58	35.74	6 33.32	35.73	7 9.05	35.73	13
	.54		.61		.70		.77		.85		.93		
14	4 10.87	35.83	4 46.70	35.83	5 22.53	35.82	5 58.35	35.82	6 34.17	35.81	7 9.98	35.80	14
	.55		.62		.70		.77		.85		.93		
15	4 11.42	35.90	4 47.32	35.91	5 23.23	35.89	5 59.12	35.90	6 35.02	35.89	7 10.91	35.88	15
	.54		.63		.70		.78		.86		.93		
16	4 11.96	35.99	4 47.95	35.98	5 23.93	35.97	5 59.90	35.98	6 35.88	35.96	7 11.84	35.96	16
	.55		.62		.70		.79		.86		.94		
17	4 12.51	36.06	4 48.57	36.06	5 24.63	36.06	6 0.69	36.05	6 36.74	36.04	7 12.78	36.04	17
	.55		.63		.71		.78		.86		.94		
18	4 13.06	36.14	4 49.20	36.14	5 25.34	36.13	6 1.47	36.13	6 37.60	36.12	7 13.72	36.12	18
	.55		.63		.71		.79		.87		.95		
19	4 13.61	36.22	4 49.83	36.22	5 26.05	36.21	6 2.26	36.21	6 38.47	36.20	7 14.67	36.20	19
	.56		.64		.71		.79		.87		.95		
20	4 14.17	36.30	4 50.47	36.29	5 26.76	36.29	6 3.05	36.29	6 39.34	36.28	7 15.62	36.27	20
	.56		.64		.72		.80		.88		.96		
21	4 14.73	36.38	4 51.11	36.37	5 27.48	36.37	6 3.85	36.37	6 40.22	36.36	7 16.58	36.35	21
	.56		.64		.72		.80		.88		.96		
22	4 15.29	36.46	4 51.75	36.45	5 28.20	36.45	6 4.65	36.45	6 41.10	36.44	7 17.54	36.43	22
	.56		.64		.72		.80		.88		.96		
23	4 15.85	36.54	4 52.39	36.53	5 28.92	36.53	6 5.45	36.53	6 41.98	36.52	7 18.50	36.51	23
	.56		.64		.73		.81		.89		.97		
24	4 16.41	36.62	4 53.03	36.62	5 29.65	36.61	6 6.26	36.61	6 42.87	36.60	7 19.47	36.59	24
	.57		.65		.73		.81		.89		.97		
25	4 16.98	36.70	4 53.68	36.70	5 30.38	36.69	6 7.07	36.69	6 43.76	36.68	7 20.44	36.67	25
	.57		.65		.73		.81		.89		.97		
26	4 17.55	36.78	4 54.33	36.78	5 31.11	36.77	6 7.88	36.77	6 44.65	36.76	7 21.41	36.76	26

λ (unità 0s.01)

$\Delta\xi =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta' =$ 0.5	0	0	1	1	2	2	2	3	3	4	4
0.6	0	0	1	1	2	2	3	3	4	4	5
0.7	0	1	1	2	2	3	3	4	4	5	6
0.8	0	1	1	2	3	3	4	4	5	6	6
0.9	0	1	1	2	3	4	4	5	6	6	7
1.0	0	1	2	2	3	4	5	6	6	7	8

Prontuari delle AR: Zona +55°

η'	ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η'
	s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	33.95	33.95	1 7.90	33.95	1 41.85	33.95	2 15.80	33.95	2 49.75	33.95	3 23.70	33.94	0
	.07		.14		.21		.28		.35		.41		
1	34.02	34.02	1 8.04	34.02	1 42.06	34.02	2 16.08	34.02	2 50.10	34.01	3 24.11	34.01	1
	.07		.14		.21		.28		.35		.41		
2	34.09	34.09	1 8.18	34.09	1 42.27	34.09	2 16.36	34.09	2 50.45	34.07	3 24.52	34.09	2
	.07		.14		.21		.27		.34		.42		
3	34.16	34.16	1 8.32	34.16	1 42.48	34.15	2 16.63	34.16	2 50.79	34.15	3 24.94	34.15	3
	.07		.14		.21		.28		.35		.42		
4	34.23	34.23	1 8.46	34.23	1 42.69	34.22	2 16.91	34.23	2 51.14	34.22	3 25.36	34.22	4
	.07		.14		.20		.28		.35		.42		
5	34.30	34.30	1 8.60	34.29	1 42.89	34.30	2 17.19	34.30	2 51.49	34.29	3 25.78	34.29	5
	.07		.14		.22		.28		.35		.42		
6	34.37	34.37	1 8.74	34.37	1 43.11	34.36	2 17.47	34.37	2 51.84	34.36	3 26.20	34.56	6
	.07		.14		.21		.28		.35		.42		
7	34.44	34.44	1 8.88	34.44	1 43.32	34.43	2 17.75	34.44	2 52.19	34.43	3 26.62	34.43	7
	.07		.14		.21		.29		.35		.43		
8	34.51	34.51	1 9.02	34.51	1 43.53	34.51	2 18.04	34.50	2 52.54	34.51	3 27.05	34.50	8
	.07		.14		.21		.28		.36		.43		
9	34.58	34.58	1 9.16	34.58	1 43.74	34.58	2 18.32	34.58	2 52.90	34.58	3 27.48	34.57	9
	.07		.14		.22		.29		.36		.42		
10	34.65	34.65	1 9.30	34.66	1 43.96	34.65	2 18.61	34.65	2 53.26	34.64	3 27.90	34.65	10
	.07		.15		.21		.28		.35		.43		
11	34.72	34.73	1 9.45	34.72	1 44.17	34.72	2 18.89	34.72	2 53.61	34.72	3 28.33	34.72	11
	.08		.14		.22		.29		.36		.43		
12	34.80	34.79	1 9.59	34.80	1 44.39	34.79	2 19.18	34.79	2 53.97	34.79	3 28.76	34.79	12
	.07		.15		.21		.29		.37		.44		
13	34.87	34.87	1 9.74	34.86	1 44.60	34.87	2 19.47	34.87	2 54.34	34.86	3 29.20	34.86	13
	.07		.14		.22		.29		.36		.43		
14	34.94	34.94	1 9.88	34.94	1 44.82	34.94	2 19.76	34.94	2 54.70	34.93	3 29.63	34.93	14
	.07		.15		.22		.29		.36		.44		
15	35.01	35.02	1 10.03	35.01	1 45.04	35.01	2 20.05	35.01	2 55.06	35.01	3 30.07	35.00	15
	.08		.14		.22		.30		.37		.44		
16	35.09	35.08	1 10.17	35.09	1 45.26	35.09	2 20.35	35.08	2 55.43	35.08	3 30.51	35.08	16
	.07		.15		.22		.29		.37		.44		
17	35.16	35.16	1 10.32	35.16	1 45.48	35.16	2 20.64	35.16	2 55.80	35.15	3 30.95	35.15	17
	.07		.15		.22		.29		.36		.44		
18	35.23	35.24	1 10.47	35.23	1 45.70	35.23	2 20.93	35.23	2 56.16	35.23	3 31.39	35.23	18
	.08		.15		.22		.30		.37		.45		
19	35.31	35.31	1 10.62	35.30	1 45.92	35.31	2 21.23	35.30	2 56.53	35.31	3 31.84	35.30	19
	.07		.15		.23		.30		.38		.44		
20	35.38	35.39	1 10.77	35.38	1 46.15	35.38	2 21.53	35.38	2 56.91	35.37	3 32.28	35.38	20
	.08		.15		.22		.30		.37		.45		
21	35.46	35.46	1 10.92	35.45	1 46.37	35.46	2 21.83	35.45	2 57.28	35.45	3 32.73	35.45	21
	.07		.15		.23		.30		.38		.45		
22	35.53	35.54	1 11.07	35.53	1 46.60	35.53	2 22.13	35.53	2 57.66	35.52	3 33.18	35.53	22
	.08		.15		.22		.30		.37		.45		
23	35.61	35.61	1 11.22	35.60	1 46.82	35.61	2 22.43	35.60	2 58.03	35.60	3 33.63	35.60	23
	.07		.15		.23		.30		.38		.46		
24	35.68	35.69	1 11.37	35.68	1 47.05	35.68	2 22.73	35.68	2 58.41	35.68	3 34.09	35.67	24
	.08		.15		.23		.31		.38		.45		
25	35.76	35.76	1 11.52	35.76	1 47.28	35.76	2 23.04	35.75	2 58.79	35.75	3 34.54	35.75	25
	.08		.15		.23		.30		.38		.46		
26	35.84	35.83	1 11.67	35.84	1 47.51	35.83	2 23.34	35.83	2 59.17	35.83	3 35.00	35.83	26

λ (unità $0^s.01$)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Δη' = 0.0	0	0	0	0	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	0	0	1	1	1
0.2	0	0	0	0	1	1	1	1	1	1	1
0.3	0	0	0	1	1	1	1	1	2	2	2
0.4	0	0	1	1	1	1	2	2	2	3	3
0.5	0	0	1	1	1	2	2	2	3	3	3

Prontuari delle AR: Zona +55°

η'	$\xi=7$		$\xi=8$		$\xi=9$		$\xi=10$		$\xi=11$		$\xi=12$		η'
	m s	s	m s	s	m s	s	m s	s	m s	s	m s	s	
0	3 57.64	33.94	4 31.58	33.94	5 5.52	33.93	5 39.45	33.93	6 13.38	33.93	6 47.31	33.92	0
	.48		.55		.62		.69		.76		.82		
1	3 58.12	34.01	4 32.13	34.01	5 6.14	34.00	5 40.14	34.00	6 14.14	33.99	6 48.13	33.99	1
	.49		.55		.62		.69		.76		.83		
2	3 58.61	34.07	4 32.68	34.08	5 6.76	34.07	5 40.83	34.07	6 14.90	34.06	6 48.96	34.06	2
	.48		.56		.62		.69		.76		.83		
3	3 59.09	34.15	4 33.24	34.14	5 7.38	34.14	5 41.52	34.14	6 15.66	34.13	6 49.79	34.13	3
	.49		.56		.63		.70		.77		.84		
4	3 59.58	34.22	4 33.80	34.21	5 8.01	34.21	5 42.22	34.21	6 16.43	34.20	6 50.63	34.19	4
	.49		.55		.63		.70		.76		.83		
5	4 0.07	34.28	4 34.35	34.29	5 8.64	34.28	5 42.92	34.27	6 17.19	34.27	6 51.46	34.27	5
	.49		.57		.63		.70		.78		.85		
6	4 0.56	34.36	4 34.92	34.35	5 9.27	34.35	5 43.62	34.35	6 17.97	34.34	6 52.31	34.33	6
	.49		.56		.63		.70		.77		.84		
7	4 1.05	34.43	4 35.48	34.42	5 9.90	34.42	5 44.32	34.42	6 18.74	34.41	6 53.15	34.41	7
	.50		.57		.64		.71		.78		.85		
8	4 1.55	34.50	4 36.05	34.49	5 10.54	34.49	5 45.03	34.49	6 19.52	34.48	6 54.00	34.48	8
	.50		.57		.64		.71		.78		.85		
9	4 2.05	34.57	4 36.62	34.56	5 11.18	34.56	5 45.74	34.56	6 20.30	34.55	6 54.85	34.55	9
	.50		.57		.64		.72		.78		.86		
10	4 2.55	34.64	4 37.19	34.63	5 11.82	34.64	5 46.46	34.62	6 21.08	34.63	6 55.71	34.62	10
	.50		.57		.65		.71		.79		.86		
11	4 3.05	34.71	4 37.76	34.71	5 12.47	34.70	5 47.17	34.70	6 21.87	34.70	6 56.57	34.69	11
	.50		.58		.65		.72		.79		.86		
12	4 3.55	34.79	4 38.34	34.78	5 13.12	34.77	5 47.89	34.77	6 22.66	34.77	6 57.43	34.76	12
	.51		.57		.65		.72		.80		.87		
13	4 4.06	34.85	4 38.91	34.86	5 13.77	34.84	5 48.61	34.85	6 23.46	34.84	6 58.30	34.83	13
	.50		.58		.65		.73		.80		.87		
14	4 4.56	34.93	4 39.49	34.93	5 14.42	34.92	5 49.34	34.92	6 24.26	34.91	6 59.17	34.90	14
	.51		.59		.65		.73		.80		.87		
15	4 5.07	35.01	4 40.08	34.99	5 15.07	35.00	5 50.07	34.99	6 25.06	34.98	7 0.04	34.98	15
	.52		.58		.66		.73		.80		.88		
16	4 5.59	35.07	4 40.66	35.07	5 15.73	35.07	5 50.80	35.06	6 25.86	35.06	7 0.92	35.05	16
	.51		.59		.66		.73		.81		.88		
17	4 6.10	35.15	4 41.25	35.14	5 16.39	35.14	5 51.53	35.14	6 26.67	35.13	7 1.80	35.13	17
	.52		.59		.67		.74		.81		.88		
18	4 6.62	35.22	4 41.84	35.22	5 17.06	35.21	5 52.27	35.21	6 27.48	35.20	7 2.68	35.20	18
	.52		.59		.66		.74		.81		.89		
19	4 7.14	35.29	4 42.43	35.29	5 17.72	35.29	5 53.01	35.28	6 28.29	35.28	7 3.57	35.28	19
	.52		.60		.67		.74		.82		.89		
20	4 7.66	35.37	4 43.03	35.36	5 18.39	35.36	5 53.75	35.36	6 29.11	35.35	7 4.46	35.35	20
	.52		.60		.68		.75		.83		.90		
21	4 8.18	35.45	4 43.63	35.44	5 19.07	35.43	5 54.50	35.44	6 29.94	35.42	7 5.36	35.42	21
	.53		.59		.67		.75		.82		.90		
22	4 8.71	35.51	4 44.22	35.52	5 19.74	35.51	5 55.25	35.51	6 30.76	35.50	7 6.26	35.50	22
	.52		.61		.68		.75		.83		.90		
23	4 9.23	35.60	4 44.83	35.59	5 20.42	35.58	5 56.00	35.59	6 31.59	35.57	7 7.16	35.58	23
	.53		.60		.68		.76		.83		.91		
24	4 9.76	35.67	4 45.43	35.67	5 21.10	35.66	5 56.76	35.66	6 32.42	35.65	7 8.07	35.65	24
	.53		.61		.68		.76		.83		.91		
25	4 10.29	35.75	4 46.04	35.74	5 21.78	35.74	5 57.52	35.73	6 33.25	35.73	7 8.98	35.73	25
	.54		.61		.69		.76		.84		.92		
26	4 10.83	35.82	4 46.65	35.82	5 22.47	35.81	5 58.28	35.81	6 34.09	35.81	7 9.90	35.80	26

λ (unità 0ˢ.01)

$\Delta\xi=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$\Delta\eta'=$ 0.5	0	0	1	1	1	2	2	2	3	3	3
0.6	0	0	1	1	2	2	3	3	3	4	4
0.7	0	0	1	1	2	2	3	3	4	4	5
0.8	0	1	1	2	2	3	3	4	4	5	6
0.9	0	1	1	2	3	3	4	4	5	6	6
1.0	0	1	1	2	3	3	4	5	6	6	7

PARTE SECONDA

PRONTUARI DELLE *DECL.*

FORMULA PRATICA D'INTERPOLAZIONE:

$$\delta = \text{Valore d'entrata} - \text{differenza orizzontale} \times \Delta\xi$$
$$+ 299.''6 \times \Delta\eta'$$
$$+ \mu$$

η′	ξ = 0		ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η′
0	62° 54′ 60″.5	0″.5	60″.0	1″.3	58″.7	2″.1	56″.6	3″.0	53″.6	3″.8	49″.8	4″.7	62° 54′ 45″.1	5″.5	0
	3		3		4		3		3		3		3		
1	62 59 60.4	0.5	59.9	1.2	58.7	2.2	56.5	3.0	53.5	3.8	49.7	4.7	62 59 45.0	5.6	1
	3		3		3		3		3		2		2		
2	63 4 60.3	0.5	59.8	1.2	58.6	2.2	56.4	3.0	53.4	3.9	49.5	4.7	63 4 44.8	5.6	2
	3		4		3		3		3		3		3		
3	63 9 60.2	0.4	59.8	1.3	58.5	2.2	56.3	3.0	53.3	3.9	49.4	4.7	63 9 44.7	5.6	3
	3		3		3		4		3		3		3		
4	63 14 60.1	0.4	59.7	1.3	58.4	2.1	56.3	3.1	53.2	3.9	49.3	4.7	63 14 44.6	5.7	4
	4		4		4		3		4		3		3		
5	63 19 60.1	0.4	59.7	1.3	58.4	2.2	56.2	3.0	53.2	4.0	49.2	4.7	63 19 44.5	5.7	5
	4		3		3		3		3		4		3		
6	63 24 60.1	0.5	59.6	1.3	58.3	2.2	56.1	3.0	53.1	3.9	49.2	4.8	63 24 44.4	5.7	6
	3		4		4		4		3		3		3		
7	63 29 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.1	53.0	3.9	49.1	4.8	63 29 44.3	5.7	7
	4		4		4		4		4		3		3		
8	63 34 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.1	53.0	4.0	49.0	4.8	63 34 44.2	5.7	8
	4		4		3		3		4		4		3		
9	63 39 60.0	0.4	59.6	1.4	58.2	2.2	56.0	3.0	53.0	4.0	49.0	4.9	63 39 44.1	5.7	9
	4		4		4		4		3		3		4		
10	63 44 60.0	0.4	59.6	1.4	58.2	2.2	56.0	3.1	52.9	4.0	48.9	4.8	63 44 44.1	5.8	10
	4		4		4		4		4		4		3		
11	63 49 60.0	0.4	59.6	1.4	58.2	2.2	56.0	3.1	52.9	4.0	48.9	4.9	63 49 44.0	5.8	11
	4		3		4		4		4		4		3		
12	63 54 60.0	0.5	59.5	1.3	58.2	2.2	56.0	3.1	52.9	4.0	48.9	5.0	63 54 43.9	5.7	12
	4		4		4		4		3		3		4		
13	63 59 60.0	0.5	59.5	1.3	58.2	2.2	56.0	3.2	52.8	4.0	48.8	4.9	63 59 43.9	5.8	13
	4		4		4		4		4		4		3		
14	64 4 60.0	0.5	59.5	1.3	58.2	2.2	56.0	3.2	52.8	4.0	48.8	5.0	64 4 43.8	5.8	14
	4		4		4		3		4		3		4		
15	64 9 60.0	0.5	59.5	1.3	58.2	2.3	55.9	3.1	52.8	4.1	48.7	4.9	64 9 43.8	5.9	15
	4		4		4		4		3		4		3		
16	64 14 60.0	0.5	59.5	1.3	58.2	2.3	55.9	3.2	52.7	4.0	48.7	5.0	64 14 43.7	5.9	16
	4		4		4		4		4		3		3		
17	64 19 60.0	0.5	59.5	1.3	58.2	2.3	55.9	3.2	52.7	4.1	48.6	5.0	64 19 43.6	5.9	17
	4		4		3		4		4		4		4		
18	64 24 60.0	0.5	59.5	1.4	58.1	2.2	55.9	3.2	52.7	4.1	48.6	5.0	64 24 43.6	6.0	18
	3		4		4		3		3		3		3		
19	64 29 59.9	0.4	59.5	1.4	58.1	2.3	55.8	3.2	52.6	4.1	48.5	5.0	64 29 43.5	6.0	19
	4		4		4		4		4		4		3		
20	64 34 59.9	0.4	59.5	1.4	58.1	2.3	55.8	3.2	52.6	4.1	48.5	5.1	64 34 43.4	6.0	20
	4		3		3		3		3		3		3		
21	64 39 59.9	0.5	59.4	1.4	58.0	2.3	55.7	3.2	52.5	4.1	48.4	5.1	64 39 43.3	6.0	21
	3		4		4		4		3		3		3		
22	64 44 59.8	0.4	59.4	1.4	58.0	2.3	55.7	3.3	52.4	4.1	48.3	5.1	64 44 43.2	6.0	22
	4		3		3		3		4		3		3		
23	64 49 59.8	0.5	59.3	1.4	57.9	2.3	55.6	3.2	52.4	4.2	48.2	5.1	64 49 43.1	6.1	23
	3		3		4		3		3		3		2		
24	64 54 59.7	0.5	59.2	1.3	57.9	2.4	55.5	3.2	52.3	4.2	48.1	5.2	64 54 42.9	6.0	24
	3		4		3		3		2		2		3		
25	64 59 59.6	0.4	59.2	1.4	57.8	2.4	55.4	3.3	52.1	4.2	47.9	5.1	64 59 42.8	6.1	25
	3		3		3		3		3		3		2		
26	65 4 59.5	0.4	59.1	1.4	57.7	2.4	55.3	3.3	52.0	4.2	47.8	5.2	65 4 42.6	6.1	26

μ (unità 0″.1)

Δξ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

Prontuari delle Decl.: Zona + 64°

η'	$\xi = 7$		$\xi = 8$		$\xi = 9$		$\xi = 10$		$\xi = 11$		$\xi = 12$		$\xi = 13$		η
0	62° 54′ 39″.6	6″.4	33″.2	7″.3	25″.9	8″.1	17″.8	8″.9	8″.9	9″.8	*59″.1	10″.7	62° 53′ 48″.4	11″.5	0
	2		2		2		2		1		1		1		
1	62 59 39.4	6.4	33.0	7.3	25.7	8.1	17.6	9.0	8.6	9.8	*58.8	10.7	62 58 48.1	11.5	1
	2		2		2		1		1		0		0		
2	63 4 39.2	6.4	32.8	7.3	25.5	8.2	17.3	9.0	8.3	9.9	*58.4	10.7	63 3 47.7	11.5	2
	3		2		2		2		1		1		1		
3	63 9 39.1	6.5	32.6	7.3	25.3	8.2	17.1	9.1	8.0	9.9	*58.1	10.7	63 8 47.4	11.5	3
	2		3		2		2		2		2		1		
4	63 14 38.9	6.4	32.5	7.4	25.1	8.2	16.9	9.1	7.8	9.9	*57.9	10.8	63 13 47.1	11.6	4
	3		2		2		2		2		1		0		
5	63 19 38.8	6.5	32.3	7.4	24.9	8.2	16.7	9.1	7.6	10.0	*57.6	10.9	63 18 46.7	11.7	5
	3		3		3		2		1		1		1		
6	63 24 38.7	6.5	32.2	7.4	24.8	8.3	16.5	9.2	7.3	10.0	*57.3	10.9	63 23 46.4	11.7	6
	3		3		2		2		2		2		1		
7	63 29 38.6	6.5	32.1	7.5	24.6	8.3	16.3	9.2	7.1	10.0	*57.1	11.0	63 28 46.1	11.8	7
	3		2		3		2		2		1		2		
8	63 34 38.5	6.6	31.9	7.4	24.5	8.4	16.1	9.2	6.9	10.1	*56.8	10.9	63 33 45.9	11.7	8
	3		3		2		2		2		2		0		
9	63 39 38.4	6.6	31.8	7.5	24.3	8.4	15.9	9.2	6.7	10.1	*56.6	11.1	63 38 45.5	11.9	9
	3		3		3		3		2		1		2		
10	63 44 38.3	6.6	31.7	7.5	24.2	8.4	15.8	9.3	6.5	10.2	*56.3	11.0	63 43 45.3	11.8	10
	3		3		2		2		2		2		1		
11	63 49 38.2	6.6	31.6	7.6	24.0	8.4	15.6	9.3	6.3	10.2	*56.1	11.1	63 48 45.0	11.9	11
	4		3		3		2		2		1		1		
12	63 54 38.2	6.7	31.5	7.6	23.9	8.5	15.4	9.3	6.1	10.3	*55.8	11.1	63 53 44.7	11.9	12
	3		3		3		3		2		2		1		
13	63 59 38.1	6.7	31.4	7.6	23.8	8.5	15.3	9.4	5.9	10.3	*55.6	11.2	63 58 44.4	12.0	13
	3		3		2		2		2		2		2		
14	64 4 38.0	6.7	31.3	7.7	23.6	8.5	15.1	9.4	5.7	10.3	*55.4	11.2	64 3 44.2	12.0	14
	3		3		3		2		2		1		1		
15	64 9 37.9	6.7	31.2	7.7	23.5	8.6	14.9	9.4	5.5	10.4	*55.1	11.2	64 8 43.9	12.0	15
	3		2		3		3		2		2		1		
16	64 14 37.8	6.8	31.0	7.6	23.4	8.6	14.8	9.5	5.3	10.4	*54.9	11.3	64 13 43.6	12.1	16
	3		3		2		2		2		1		1		
17	64 19 37.7	6.8	30.9	7.7	23.2	8.6	14.6	9.5	5.1	10.5	*54.6	11.3	64 18 43.3	12.1	17
	3		3		3		2		1		2		1		
18	64 24 37.6	6.8	30.8	7.7	23.1	8.7	14.4	9.6	4.8	10.4	*54.4	11.4	64 23 43.0	12.2	18
	3		3		2		2		2		1		1		
19	64 29 37.5	6.8	30.7	7.8	22.9	8.7	14.2	9.6	4.6	10.5	*54.1	11.4	64 28 42.7	12.2	19
	3		3		3		2		2		2		1		
20	64 34 37.4	6.8	30.6	7.8	22.8	8.8	14.0	9.6	4.4	10.5	*53.9	11.5	64 33 42.4	12.3	20
	3		2		2		2		1		1		0		
21	64 39 37.3	6.9	30.4	7.8	22.6	8.8	13.8	9.7	4.1	10.5	*53.6	11.6	64 38 42.0	12.4	21
	3		3		2		2		2		1		1		
22	64 44 37.2	6.9	30.3	7.9	22.4	8.8	13.6	9.7	3.9	10.6	*53.3	11.6	64 43 41.7	12.4	22
	2		2		2		2		1		1		1		
23	64 49 37.0	6.9	30.1	7.9	22.2	8.8	13.4	9.8	3.6	10.6	*53.0	11.6	64 48 41.4	12.4	23
	3		2		2		1		1		0		0		
24	64 54 36.9	7.0	29.9	7.9	22.0	8.9	13.1	9.8	3.3	10.7	*52.6	11.6	64 53 41.0	12.4	24
	2		2		2		2		2		1		0		
25	64 59 36.7	7.0	29.7	7.9	21.8	8.9	12.9	9.8	3.1	10.8	*52.3	11.7	64 58 40.6	12.5	25
	2		2		1		1		0		1		0		
26	65 4 36.5	7.0	29.5	8.0	21.5	8.9	12.6	9.9	2.7	10.7	*52.0	11.8	65 3 40.2	12.6	26

μ (unità 0″.1)

$\Delta\eta'=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c=0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η′	ξ = 0		ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η′
0	61° 54′ 60″.5	0″.5	60″.0	1″.2	58″.8	2″.0	56″.8	2″.9	53″.9	3″.7	50″.2	4″.5	61° 54′ 45″.7	5″.3	0
	3		4		3		3		3		3		3		
1	61 59 60.4	0.4	60.0	1.3	58.7	2.0	56.7	2.9	53.8	3.7	50.1	4.5	61 59 45.6	5.3	1
	3		3		3		3		3		3		3		
2	62 4 60.3	0.4	59.9	1.3	58.6	2.0	56.6	2.9	53.7	3.7	50.0	4.5	62 4 45.5	5.4	2
	3		3		4		3		3		3		2		
3	62 9 60.2	0.4	59.8	1.2	58.6	2.1	56.5	2.9	53.6	3.7	49.9	4.6	62 9 45.3	5.3	3
	3		3		3		3		3		3		3		
4	62 14 60.1	0.4	59.7	1.2	58.5	2.1	56.4	2.9	53.5	3.7	49.8	4.6	62 14 45.2	5.4	4
	4		4		3		4		3		3		3		
5	62 19 60.1	0.4	59.7	1.3	58.4	2.0	56.4	3.0	53.4	3.7	49.7	4.6	62 19 45.1	5.4	5
	4		3		4		3		4		3		3		
6	62 24 60.1	0.5	59.6	1.2	58.4	2.1	56.3	2.9	53.4	3.8	49.6	4.6	62 24 45.0	5.4	6
	3		4		4		4		3		4		4		
7	62 29 60.0	0.4	59.6	1.2	58.4	2.1	56.3	3.0	53.3	3.7	49.6	4.6	62 29 45.0	5.5	7
	4		4		3		3		4		3		3		
8	62 34 60.0	0.4	59.6	1.3	58.3	2.1	56.2	2.9	53.3	3.8	49.5	4.6	62 34 44.9	5.5	8
	4		4		4		4		4		4		3		
9	62 39 60.0	0.4	59.6	1.3	58.3	2.1	56.2	2.9	53.3	3.8	49.5	4.7	62 39 44.8	5.5	9
	4		4		4		4		3		3		4		
10	62 44 60.0	0.4	59.6	1.3	58.3	2.1	56.2	3.0	53.2	3.8	49.4	4.6	62 44 44.8	5.6	10
	4		4		4		4		4		4		3		
11	62 49 60.0	0.4	59.6	1.3	58.3	2.1	56.2	3.0	53.2	3.8	49.4	4.7	62 49 44.7	5.5	11
	4		4		4		4		4		3		3		
12	62 54 60.0	0.4	59.6	1.3	58.3	2.1	56.2	3.0	53.2	3.9	49.3	4.7	62 54 44.6	5.5	12
	4		4		4		3		3		4		4		
13	62 59 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.0	53.1	3.8	49.3	4.7	62 59 44.6	5.6	13
	4		4		4		4		4		4		3		
14	63 4 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.0	53.1	3.8	49.3	4.8	63 4 44.5	5.6	14
	4		4		4		4		4		3		4		
15	63 9 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.0	53.1	3.9	49.2	4.7	63 9 44.5	5.6	15
	4		4		4		4		4		4		3		
16	63 14 60.0	0.4	59.6	1.3	58.3	2.2	56.1	3.0	53.1	3.9	49.2	4.8	63 14 44.4	5.6	16
	4		4		3		4		3		3		3		
17	63 19 60.0	0.4	59.6	1.4	58.2	2.1	56.1	3.1	53.0	3.9	49.1	4.8	63 19 44.3	5.6	17
	4		3		4		3		4		4		4		
18	63 24 60.0	0.5	59.5	1.3	58.2	2.2	56.0	3.0	53.0	3.9	49.1	4.8	63 24 44.3	5.7	18
	3		4		4		4		3		3		3		
19	63 29 59.9	0.4	59.5	1.3	58.2	2.2	56.0	3.1	52.9	3.9	49.0	4.8	63 29 44.2	5.7	19
	4		4		4		4		4		3		3		
20	63 34 59.9	0.4	59.5	1.3	58.2	2.2	56.0	3.1	52.9	4.0	48.9	4.8	63 34 44.1	5.7	20
	4		3		3		3		3		4		3		
21	63 39 59.9	0.5	59.4	1.3	58.1	2.2	55.9	3.1	52.8	3.9	48.9	4.9	63 39 44.0	5.7	21
	3		4		4		4		4		3		3		
22	63 44 59.8	0.4	59.4	1.3	58.1	2.2	55.9	3.1	52.8	4.0	48.8	4.9	63 44 43.9	5.7	22
	4		3		3		3		3		3		3		
23	63 49 59.8	0.5	59.3	1.3	58.0	2.2	55.8	3.1	52.7	4.0	48.7	4.9	63 49 43.8	5.8	23
	3		4		3		3		3		3		3		
24	63 54 59.7	0.4	59.3	1.4	57.9	2.2	55.7	3.1	52.6	4.0	48.6	4.9	63 54 43.7	5.8	24
	3		3		3		3		3		2		2		
25	63 59 59.6	0.4	59.2	1.4	57.8	2.2	55.6	3.1	52.5	4.1	48.4	4.9	63 59 43.5	5.8	25
	3		3		3		3		3		3		3		
26	64 4 59.5	0.4	59.1	1.4	57.7	2.2	55.5	3.1	52.4	4.1	48.3	4.9	64 4 43.4	5.9	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η′	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η′
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	61 54 40.4	6.1	34.3	6.9	27.4	7.8	19.6	8.6	11.0	9.4	1.6	10.2	*61 53 51.4	11.0	0
1	61 59 40.3	6.2	34.1	7.0	27.1	7.7	19.4	8.6	10.8	9.5	1.3	10.2	*61 58 51.1	11.0	1
2	62 4 40.1	6.2	33.9	7.0	26.9	7.8	19.1	8.6	10.5	9.5	1.0	10.3	*62 3 50.7	11.1	2
3	62 9 40.0	6.2	33.8	7.0	26.8	7.9	18.9	8.7	10.2	9.5	0.7	10.3	*62 8 50.4	11.1	3
4	62 14 39.8	6.2	33.6	7.0	26.6	7.9	18.7	8.7	10.0	9.5	0.5	10.4	*62 13 50.1	11.2	4
5	62 19 39.7	6.2	33.5	7.1	26.4	7.9	18.5	8.7	9.8	9.6	0.2	10.4	*62 18 49.8	11.2	5
6	62 24 39.6	6.3	33.3	7.1	26.2	7.9	18.3	8.7	9.6	9.6	0.0	10.5	*62 23 49.5	11.3	6
7	62 29 39.5	6.3	33.2	7.1	26.1	8.0	18.1	8.7	9.4	9.7	*59.7	10.5	62 28 49.2	11.3	7
8	62 34 39.4	6.3	33.1	7.1	26.0	8.0	18.0	8.8	9.2	9.7	*59.5	10.5	62 33 49.0	11.3	8
9	62 39 39.3	6.3	33.0	7.2	25.8	8.0	17.8	8.8	9.0	9.8	*59.2	10.5	62 38 48.7	11.3	9
10	62 44 39.2	6.3	32.9	7.2	25.7	8.0	17.7	8.9	8.8	9.8	*59.0	10.6	62 43 48.4	11.4	10
11	62 49 39.2	6.4	32.8	7.2	25.6	8.1	17.5	8.9	8.6	9.8	*58.8	10.6	62 48 48.2	11.4	11
12	62 54 39.1	6.4	32.7	7.2	25.5	8.2	17.3	8.9	8.4	9.8	*58.6	10.7	62 53 47.9	11.5	12
13	62 59 39.0	6.4	32.6	7.3	25.3	8.1	17.2	9.0	8.2	9.8	*58.4	10.7	62 58 47.7	11.5	13
14	63 4 38.9	6.4	32.5	7.3	25.2	8.2	17.0	9.0	8.0	9.9	*58.1	10.7	63 3 47.4	11.5	14
15	63 9 38.9	6.5	32.4	7.3	25.1	8.2	16.9	9.1	7.8	9.9	*57.9	10.8	63 8 47.1	11.6	15
16	63 14 38.8	6.5	32.3	7.3	24.9	8.2	16.7	9.1	7.6	9.9	*57.7	10.8	63 13 46.9	11.6	16
17	63 19 38.7	6.5	32.2	7.4	24.8	8.2	16.6	9.2	7.4	9.9	*57.5	10.9	63 18 46.6	11.7	17
18	63 24 38.6	6.5	32.1	7.4	24.7	8.3	16.4	9.2	7.2	10.0	*57.2	10.9	63 23 46.3	11.7	18
19	63 29 38.5	6.6	31.9	7.4	24.5	8.3	16.2	9.2	7.0	10.0	*57.0	11.0	63 28 46.0	11.8	19
20	63 34 38.4	6.6	31.8	7.4	24.4	8.4	16.0	9.2	6.8	10.1	*56.7	11.0	63 33 45.7	11.8	20
21	63 39 38.3	6.6	31.7	7.5	24.2	8.4	15.8	9.2	6.6	10.2	*56.4	11.0	63 38 45.4	11.8	21
22	63 44 38.2	6.7	31.5	7.5	24.0	8.4	15.6	9.3	6.3	10.1	*56.2	11.1	63 43 45.1	11.9	22
23	63 49 38.0	6.6	31.4	7.6	23.8	8.4	15.4	9.3	6.1	10.2	*55.9	11.1	63 48 44.8	11.9	23
24	63 54 37.9	6.7	31.2	7.6	23.6	8.4	15.2	9.4	5.8	10.2	*55.6	11.1	63 53 44.5	11.9	24
25	63 59 37.7	6.7	31.0	7.6	23.4	8.5	14.9	9.4	5.5	10.3	*55.2	11.1	63 58 44.1	11.9	25
26	64 4 37.5	6.7	30.8	7.6	23.2	8.5	14.7	9.4	5.3	10.4	*54.9	11.2	64 3 43.7	12.0	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η′	ξ = 0		ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η′
0	60° 54′ 60″.5	0″.4	60″.1	1″.2	58″.9	2″.0	56″.9	2″.7	54″.2	3″.5	50″.7	4″.4	60° 54′ 46″.3	5″.1	0
	3		3		3		3		3		2		3		
1	60 59 60.4	0.4	60.0	1.2	58.8	2.0	56.8	2.7	54.1	3.6	50.5	4.3	60 59 46.2	5.1	1
	3		3		3		3		3		3		3		
2	61 4 60.3	0.4	59.9	1.2	58.7	2.0	56.7	2.7	54.0	3.6	50.4	4.3	61 4 46.1	5.2	2
	3		3		3		3		3		3		2		
3	61 9 60.2	0.4	59.8	1.2	58.6	2.0	56.6	2.7	53.9	3.6	50.3	4.4	61 9 45.9	5.1	3
	3		3		4		4		3		3		3		
4	61 14 60.1	0.4	59.7	1.1	58.6	2.0	56.6	2.8	53.8	3.6	50.2	4.4	61 14 45.8	5.1	4
	4		4		3		3		3		3		3		
5	61 19 60.1	0.4	59.7	1.2	58.5	2.0	56.5	2.8	53.7	3.6	50.1	4.4	61 19 45.7	5.1	5
	4		4		4		4		4		4		4		
6	61 24 60.1	0.4	59.7	1.2	58.5	2.0	56.5	2.8	53.7	3.6	50.1	4.4	61 24 45.7	5.3	6
	3		3		3		3		3		3		3		
7	61 29 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.8	53.6	3.6	50.0	4.4	61 29 45.6	5.2	7
	4		4		4		4		4		4		3		
8	61 34 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.8	53.6	3.6	50.0	4.5	61 34 45.5	5.2	8
	4		4		4		4		3		3		3		
9	61 39 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.9	53.5	3.6	49.9	4.5	61 39 45.4	5.2	9
	4		4		4		4		4		4		4		
10	61 44 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.9	53.5	3.6	49.9	4.5	61 44 45.4	5.3	10
	4		4		4		3		4		3		3		
11	61 49 60.0	0.4	59.6	1.2	58.4	2.1	56.3	2.8	53.5	3.7	49.8	4.5	61 49 45.3	5.3	11
	4		4		4		4		4		4		4		
12	61 54 60.0	0.4	59.6	1.2	58.4	2.1	56.3	2.8	53.5	3.7	49.8	4.5	61 54 45.3	5.3	12
	4		4		4		4		3		3		3		
13	61 59 60.0	0.4	59.6	1.2	58.4	2.1	56.3	2.9	53.4	3.7	49.7	4.5	61 59 45.2	5.3	13
	4		4		3		4		4		4		4		
14	62 4 60.0	0.4	59.6	1.3	58.3	2.0	56.3	2.9	53.4	3.7	49.7	4.5	62 4 45.2	5.4	14
	4		4		4		4		4		4		3		
15	62 9 60.0	0.4	59.6	1.3	58.3	2.0	56.3	2.9	53.4	3.7	49.7	4.6	62 9 45.1	5.4	15
	4		4		4		4		3		3		4		
16	62 14 60.0	0.4	59.6	1.3	58.3	2.0	56.3	3.0	53.3	3.7	49.6	4.5	62 14 45.1	5.4	16
	4		4		4		3		4		4		3		
17	62 19 60.0	0.4	59.6	1.3	58.3	2.1	56.2	2.9	53.3	3.7	49.6	4.6	62 19 45.0	5.4	17
	4		3		4		4		4		3		3		
18	62 24 60.0	0.5	59.5	1.2	58.3	2.1	56.2	2.9	53.3	3.8	49.5	4.6	62 24 44.9	5.4	18
	3		4		4		4		3		4		4		
19	62 29 59.9	0.4	59.5	1.2	58.3	2.1	56.2	3.0	53.2	3.7	49.5	4.6	62 29 44.9	5.5	19
	4		4		3		3		4		3		3		
20	62 34 59.9	0.4	59.5	1.3	58.2	2.1	56.1	2.9	53.2	3.8	49.4	4.6	62 34 44.8	5.5	20
	4		4		4		4		3		3		3		
21	62 39 59.9	0.4	59.5	1.3	58.2	2.1	56.1	3.0	53.1	3.8	49.3	4.6	62 39 44.7	5.5	21
	3		3		4		3		4		4		3		
22	62 44 59.8	0.4	59.4	1.2	58.2	2.2	56.0	2.9	53.1	3.8	49.3	4.7	62 44 44.6	5.5	22
	4		4		3		4		3		3		3		
23	62 49 59.8	0.4	59.4	1.3	58.1	2.1	56.0	3.0	53.0	3.8	49.2	4.7	62 49 44.5	5.5	23
	3		3		3		3		3		3		3		
24	62 54 59.7	0.4	59.3	1.3	58.0	2.1	55.9	3.0	52.9	3.8	49.1	4.7	62 54 44.4	5.6	24
	3		3		3		3		3		2		2		
25	62 59 59.6	0.4	59.2	1.3	57.9	2.1	55.8	3.0	52.8	3.9	48.9	4.7	62 59 44.2	5.5	25
	3		3		3		3		3		3		3		
26	63 4 59.5	0.4	59.1	1.3	57.8	2.1	55.7	3.0	52.7	3.9	48.8	4.7	63 4 44.1	5.6	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η′	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η′
0	60° 54′ 41″.2	″ 5.8	″ 35.4	″ 6.7	″ 28.7	″ 7.4	″ 21.3	″ 8.3	″ 13.0	″ 9.0	″ 4.0	″ 9.8	*60° 53′ 54″.2	″ 10.6	0
	3		2		2		1		2		1		1		
1	60 59 41.1	5.9	35.2	6.7	28.5	7.5	21.0	8.2	12.8	9.1	3.7	9.8	*60 58 53.9	10.6	1
	2		2		2		2		1		1		1		
2	61 4 40.9	5.9	35.0	6.7	28.3	7.5	20.8	8.3	12.5	9.1	3.4	9.8	*61 3 53.6	10.6	2
	3		3		2		2		2		2		1		
3	61 9 40.8	5.9	34.9	6.8	28.1	7.5	20.6	8.3	12.3	9.1	3.2	9.9	*61 8 53.3	10.7	3
	3		2		2		2		1		1		1		
4	61 14 40.7	6.0	34.7	6.8	27.9	7.5	20.4	8.4	12.0	9.1	2.9	9.9	*61 13 53.0	10.7	4
	3		3		3		2		2		2		1		
5	61 19 40.6	6.0	34.6	6.8	27.8	7.6	20.2	8.4	11.8	9.1	2.7	10.0	*61 18 52.7	10.8	5
	2		2		2		2		2		1		1		
6	61 24 40.4	6.0	34.4	6.8	27.6	7.6	20.0	8.4	11.6	9.2	2.4	10.0	*61 23 52.4	10.8	6
	4		3		3		3		2		2		2		
7	61 29 40.4	6.1	34.3	6.8	27.5	7.6	19.9	8.5	11.4	9.2	2.2	10.0	*61 28 52.2	10.8	7
	3		3		3		2		3		2		1		
8	61 34 40.3	6.1	34.2	6.8	27.4	7.7	19.7	8.4	11.3	9.3	2.0	10.1	*61 33 51.9	10.9	8
	3		3		2		3		2		2		2		
9	61 39 40.2	6.1	34.1	6.9	27.2	7.6	19.6	8.5	11.1	9.3	1.8	10.1	*61 38 51.7	10.9	9
	3		3		3		2		2		2		1		
10	61 44 40.1	6.1	34.0	6.9	27.1	7.7	19.4	8.5	10.9	9.3	1.6	10.2	*61 43 51.4	10.9	10
	3		3		3		3		2		1		2		
11	61 49 40.0	6.1	33.9	6.9	27.0	7.7	19.3	8.6	10.7	9.4	1.3	10.1	*61 48 51.2	10.9	11
	4		3		3		2		2		2		1		
12	61 54 40.0	6.2	33.8	6.9	26.9	7.8	19.1	8.6	10.5	9.4	1.1	10.2	*61 53 50.9	11.0	12
	3		3		3		3		3		2		2		
13	61 59 39.9	6.2	33.7	6.9	26.8	7.8	19.0	8.6	10.4	9.5	0.9	10.2	*61 58 50.7	11.0	13
	3		3		3		2		2		2		1		
14	62 4 39.8	6.2	33.6	6.9	26.7	7.9	18.8	8.6	10.2	9.5	0.7	10.3	*62 3 50.4	11.1	14
	3		4		2		3		2		2		2		
15	62 9 39.7	6.1	33.6	7.1	26.5	7.8	18.7	8.7	10.0	9.5	0.5	10.3	*62 8 50.2	11.1	15
	4		2		3		2		2		2		1		
16	62 14 39.7	6.3	33.4	7.0	26.4	7.9	18.5	8.7	9.8	9.5	0.3	10.4	*62 13 49.9	11.2	16
	3		4		3		3		2		2		2		
17	62 19 39.6	6.2	33.4	7.1	26.3	7.9	18.4	8.8	9.6	9.5	0.1	10.4	*62 18 49.7	11.2	17
	3		2		2		2		2		2		1		
18	62 24 39.5	6.3	33.2	7.1	26.1	7.9	18.2	8.8	9.4	9.5	*59.9	10.5	62 23 49.4	11.2	18
	3		3		3		3		3		1		2		
19	62 29 39.4	6.3	33.1	7.1	26.0	7.9	18.1	8.8	9.3	9.7	*59.6	10.4	62 28 49.2	11.2	19
	3		3		3		2		2		2		1		
20	62 34 39.3	6.3	33.0	7.1	25.9	8.0	17.9	8.8	9.1	9.7	*59.4	10.5	62 33 48.9	11.3	20
	3		3		2		2		1		1		1		
21	62 39 39.2	6.3	32.9	7.2	25.7	8.0	17.7	8.9	8.8	9.7	*59.1	10.5	62 38 48.6	11.3	21
	3		2		3		2		2		2		1		
22	62 44 39.1	6.4	32.7	7.1	25.6	8.1	17.5	8.9	8.6	9.7	*58.9	10.6	62 43 48.3	11.4	22
	3		3		2		2		2		1		1		
23	62 49 39.0	6.4	32.6	7.2	25.4	8.1	17.3	8.9	8.4	9.8	*58.6	10.6	62 48 48.0	11.4	23
	2		2		2		2		1		1		1		
24	62 54 38.8	6.4	32.4	7.2	25.2	8.1	17.1	9.0	8.1	9.8	*58.3	10.6	62 53 47.7	11.4	24
	3		2		2		1		1		1		0		
25	62 59 38.7	6.5	32.2	7.2	25.0	8.2	16.8	9.0	7.8	9.8	*58.0	10.7	62 58 47.3	11.5	25
	2		2		1		2		2		1		1		
26	63 4 38.5	6.5	32.0	7.3	24.7	8.1	16.6	9.0	7.6	9.9	*57.7	10.7	63 3 47.0	11.5	26

μ (unità 0″.1)

Δη′ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	$\xi = 0$		$\xi = 1$		$\xi = 2$		$\xi = 3$		$\xi = 4$		$\xi = 5$		$\xi = 6$		η'
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	59 54 60.5	0.4	60.1	1.1	59.0	1.9	57.1	2.7	54.4	3.4	51.0	4.1	59 54 46.9	4.9	0
	3		3		3		3		3		3		3		
1	59 59 60.4	0.4	60.0	1.1	58.9	1.9	57.0	2.7	54.3	3.4	50.9	4.1	59 59 46.8	4.9	1
	3		3		3		3		3		3		2		
2	60 4 60.3	0.4	59.9	1.1	58.8	1.9	56.9	2.7	54.2	3.4	50.8	4.2	60 4 46.6	4.9	2
	3		3		3		3		3		3		3		
3	60 9 60.2	0.4	59.8	1.1	58.7	1.9	56.8	2.7	54.1	3.4	50.7	4.2	60 9 46.5	4.9	3
	3		4		3		3		3		3		3		
4	60 14 60.1	0.3	59.8	1.2	58.6	1.9	56.7	2.7	54.0	3.4	50.6	4.2	60 14 46.4	5.0	4
	4		3		4		4		4		3		3		
5	60 19 60.1	0.4	59.7	1.1	58.6	1.9	56.7	2.7	54.0	3.5	50.5	4.2	60 19 46.3	5.0	5
	4		4		3		3		3		4		3		
6	60 24 60.1	0.4	59.7	1.2	58.5	1.9	56.6	2.7	53.9	3.4	50.5	4.3	60 24 46.2	5.0	6
	3		4		4		4		4		3		4		
7	60 29 60.0	0.3	59.7	1.2	58.5	1.9	56.6	2.7	53.9	3.5	50.4	4.2	60 29 46.2	5.0	7
	4		3		4		3		3		4		3		
8	60 34 60.0	0.4	59.6	1.1	58.5	2.0	56.5	2.7	53.8	3.4	50.4	4.3	60 34 46.1	5.0	8
	4		4		4		4		4		3		3		
9	60 39 60.0	0.4	59.6	1.1	58.5	2.0	56.5	2.7	53.8	3.5	50.3	4.3	60 39 46.0	5.0	9
	4		4		3		4		4		4		4		
10	60 44 60.0	0.4	59.6	1.2	58.4	1.9	56.5	2.7	53.8	3.5	50.3	4.3	60 44 46.0	5.1	10
	4		4		4		4		3		3		3		
11	60 49 60.0	0.4	59.6	1.2	58.4	1.9	56.5	2.8	53.7	3.5	50.2	4.3	60 49 45.9	5.1	11
	4		4		4		4		4		4		4		
12	60 54 60.0	0.4	59.6	1.2	58.4	1.9	56.5	2.8	53.7	3.5	50.2	4.3	60 54 45.9	5.1	12
	4		4		4		3		4		4		3		
13	60 59 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.7	53.7	3.5	50.2	4.4	60 59 45.8	5.1	13
	4		4		4		4		4		3		4		
14	61 4 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.7	53.7	3.6	50.1	4.3	61 4 45.8	5.2	14
	4		4		4		4		4		4		3		
15	61 9 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.7	53.7	3.6	50.1	4.4	61 9 45.7	5.1	15
	4		4		4		4		3		3		4		
16	61 14 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.8	53.6	3.6	50.0	4.3	61 14 45.7	5.2	16
	4		4		4		4		4		4		3		
17	61 19 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.8	53.6	3.6	50.0	4.4	61 19 45.6	5.2	17
	4		4		4		4		4		4		4		
18	61 24 60.0	0.4	59.6	1.2	58.4	2.0	56.4	2.8	53.6	3.6	50.0	4.4	61 24 45.6	5.3	18
	3		3		3		3		3		3		3		
19	61 29 59.9	0.4	59.5	1.2	58.3	2.0	56.3	2.8	53.5	3.6	49.9	4.4	61 29 45.5	5.2	19
	4		4		4		4		4		4		3		
20	61 34 59.9	0.4	59.5	1.2	58.3	2.0	56.3	2.8	53.5	3.6	49.9	4.5	61 34 45.4	5.2	20
	4		4		4		3		3		3		3		
21	61 39 59.9	0.4	59.5	1.2	58.3	2.1	56.2	2.8	53.4	3.6	49.8	4.5	61 39 45.3	5.2	21
	3		3		3		4		3		3		3		
22	61 44 59.8	0.4	59.4	1.2	58.2	2.0	56.2	2.9	53.3	3.6	49.7	4.5	61 44 45.2	5.2	22
	4		4		4		3		4		3		3		
23	61 49 59.8	0.4	59.4	1.2	58.2	2.1	56.1	2.8	53.3	3.7	49.6	4.5	61 49 45.1	5.3	23
	3		3		3		3		3		3		3		
24	61 54 59.7	0.4	59.3	1.2	58.1	2.1	56.0	2.8	53.2	3.7	49.5	4.5	61 54 45.0	5.3	24
	3		3		3		3		3		3		3		
25	61 59 59.6	0.4	59.2	1.2	58.0	2.1	55.9	2.8	53.1	3.7	49.4	4.5	61 59 44.9	5.4	25
	3		3		3		3		3		2		2		
26	62 4 59.5	0.4	59.1	1.2	57.9	2.1	55.8	2.8	53.0	3.8	49.2	4.5	62 4 44.7	5.3	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η′	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η′
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	59 54 42.0	5.6	36.4	6.4	30.0	7.2	22.8	7.9	14.9	8.6	6.3	9.4	*59 53 56.9	10.2	0
	3		2		2		2		2		1		0		
1	59 59 41.9	5.7	36.2	6.4	29.8	7.2	22.6	7.9	14.7	8.7	6.0	9.5	*59 58 56.5	10.2	1
	2		2		2		2		1		1		2		
2	60 4 41.7	5.7	36.0	6.4	29.6	7.2	22.4	8.0	14.4	8.7	5.7	9.4	*60 3 56.3	10.2	2
	3		3		2		2		2		2		1		
3	60 9 41.6	5.7	35.9	6.5	29.4	7.2	22.2	8.0	14.2	8.7	5.5	9.5	*60 8 56.0	10.2	3
	2		2		2		2		2		1		1		
4	60 14 41.4	5.7	35.7	6.5	29.2	7.2	22.0	8.0	14.0	8.8	5.2	9.5	*60 13 55.7	10.3	4
	3		3		3		2		2		2		1		
5	60 19 41.3	5.7	35.6	6.5	29.1	7.3	21.8	8.0	13.8	8.8	5.0	9.6	*60 18 55.4	10.4	5
	3		3		3		2		2		1		1		
6	60 24 41.2	5.7	35.5	6.5	29.0	7.4	21.6	8.0	13.6	8.9	4.7	9.6	*60 23 55.1	10.4	6
	4		3		2		3		2		2		2		
7	60 29 41.2	5.8	35.4	6.6	28.8	7.3	21.5	8.1	13.4	8.9	4.5	9.6	*60 28 54.9	10.4	7
	3		3		3		2		2		2		2		
8	60 34 41.1	5.8	35.3	6.6	28.7	7.4	21.3	8.1	13.2	8.9	4.3	9.6	*60 33 54.7	10.4	8
	3		3		3		3		2		2		1		
9	60 39 41.0	5.8	35.2	6.6	28.6	7.4	21.2	8.2	13.0	8.9	4.1	9.7	*60 38 54.4	10.5	9
	3		3		3		3		3		2		2		
10	60 44 40.9	5.8	35.1	6.6	28.5	7.4	21.1	8.2	12.9	9.0	3.9	9.7	*60 43 54.2	10.5	10
	3		3		2		2		2		2		2		
11	60 49 40.8	5.8	35.0	6.7	28.3	7.4	20.9	8.2	12.7	9.0	3.7	9.7	*60 48 54.0	10.5	11
	4		3		3		3		3		2		1		
12	60 54 40.8	5.9	34.9	6.7	28.2	7.4	20.8	8.2	12.6	9.1	3.5	9.8	*60 53 53.7	10.6	12
	3		3		3		2		2		2		2		
13	60 59 40.7	5.8	34.8	6.7	28.1	7.5	20.6	8.2	12.4	9.1	3.3	9.8	*60 58 53.5	10.6	13
	3		3		3		3		2		2		2		
14	61 4 40.6	5.9	34.7	6.7	28.0	7.5	20.5	8.3	12.2	9.1	3.1	9.8	*61 3 53.3	10.6	14
	4		3		3		3		2		3		2		
15	61 9 40.6	6.0	34.6	6.7	27.9	7.5	20.4	8.4	12.0	9.0	3.0	9.9	*61 8 53.1	10.7	15
	3		3		3		2		3		2		1		
16	61 14 40.5	6.0	34.5	6.7	27.8	7.6	20.2	8.3	11.9	9.1	2.8	10.0	*61 13 52.8	10.7	16
	3		3		3		3		2		1		2		
17	61 19 40.4	6.0	34.4	6.7	27.7	7.6	20.1	8.4	11.7	9.2	2.5	9.9	*61 18 52.6	10.7	17
	3		3		2		2		2		2		1		
18	61 24 40.3	6.0	34.3	6.8	27.5	7.6	19.9	8.4	11.5	9.2	2.3	10.0	*61 23 52.3	10.8	18
	4		3		3		3		2		2		2		
19	61 29 40.3	6.1	34.2	6.8	27.4	7.6	19.8	8.5	11.3	9.2	2.1	10.0	*61 28 52.1	10.8	19
	3		3		3		2		3		2		1		
20	61 34 40.2	6.1	34.1	6.8	27.3	7.7	19.6	8.4	11.2	9.3	1.9	10.1	*61 33 51.8	10.8	20
	3		3		2		2		2		2		2		
21	61 39 40.1	6.1	34.0	6.9	27.1	7.7	19.4	8.4	11.0	9.3	1.7	10.1	*61 38 51.6	10.9	21
	3		3		3		3		1		1		1		
22	61 44 40.0	6.1	33.9	6.9	27.0	7.7	19.3	8.6	10.7	9.3	1.4	10.1	*61 43 51.3	10.9	22
	2		2		2		2		2		1		1		
23	61 49 39.8	6.1	33.7	6.9	26.8	7.7	19.1	8.6	10.5	9.4	1.1	10.1	*61 48 51.0	10.9	23
	3		2		2		1		2		2		1		
24	61 54 39.7	6.2	33.5	6.9	26.6	7.8	18.8	8.5	10.3	9.4	0.9	10.2	*61 53 50.7	11.0	24
	2		3		2		2		1		1		0		
25	61 59 39.5	6.1	33.4	7.0	26.4	7.8	18.6	8.6	10.0	9.4	0.6	10.3	*61 58 50.3	11.1	25
	3		2		2		2		1		1		1		
26	62 4 39.4	6.2	33.2	7.0	26.2	7.8	18.4	8.7	9.7	9.4	0.3	10.3	*62 3 50.0	11.1	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	$\xi = 0$		$\xi = 1$		$\xi = 2$		$\xi = 3$		$\xi = 4$		$\xi = 5$		$\xi = 6$		η
0	58° 54′ 60″.5	″ 0.4	60″.1	″ 1.1	59″.0	″ 1.8	57″.2	″ 2.5	54″.7	″ 3.3	51″.4	″ 4.0	58° 54′ 47″.4	″ 4.7	0
	3		3		3		3		3		3		3		
1	58 59 60.4	0.4	60.0	1.1	58.9	1.8	57.1	2.5	54.6	3.3	51.3	4.0	58 59 47.3	4.7	1
	3		3		3		3		3		3		3		
2	59 4 60.3	0.4	59.9	1.1	58.8	1.8	57.0	2.5	54.5	3.3	51.2	4.0	59 4 47.2	4.8	2
	3		3		3		3		3		3		3		
3	59 9 60.2	0.4	59.8	1.1	58.7	1.8	56.9	2.5	54.4	3.3	51.1	4.0	59 9 47.1	4.8	3
	3		4		4		3		3		3		2		
4	59 14 60.1	0.3	59.8	1.1	58.7	1.9	56.8	2.5	54.3	3.3	51.0	4.1	59 14 46.9	4.7	4
	4		3		3		4		3		3		4		
5	59 19 60.1	0.4	59.7	1.1	58.6	1.8	56.8	2.6	54.2	3.3	50.9	4.0	59 19 46.9	4.8	5
	4		4		4		3		4		3		3		
6	59 24 60.1	0.4	59.7	1.1	58.6	1.9	56.7	2.5	54.2	3.4	50.8	4.0	59 24 46.8	4.8	6
	3		4		4		4		3		4		3		
7	59 29 60.0	0.3	59.7	1.1	58.6	1.9	56.7	2.6	54.1	3.3	50.8	4.1	59 29 46.7	4.8	7
	4		4		3		4		4		3		3		
8	59 34 60.0	0.3	59.7	1.2	58.5	1.8	56.7	2.6	54.1	3.4	50.7	4.1	59 34 46.6	4.8	8
	4		3		4		3		3		4		4		
9	59 39 60.0	0.4	59·6	1.1	58.5	1.9	56.6	2.6	54.0	3.3	50.7	4.1	59 39 46.6	4.9	9
	4		4		4		4		4		4		3		
10	59 44 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.6	54.0	3.3	50.7	4.2	59 44 46.5	4.8	10
	4		4		4		4		4		3		4		
11	59 49 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.6	54.0	3.4	50.6	4.1	59 49 46.5	4.9	11
	4		4		4		4		4		4		3		
12	59 54 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.6	54.0	3.4	50.6	4.2	59 54 46.4	4.9	12
	4		4		4		4		3		3		4		
13	59 59 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.7	53.9	3.4	50.5	4.1	59 59 46.4	4.9	13
	4		4		4		4		4		4		4		
14	60 4 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.7	53.9	3.4	50.5	4.1	60 4 46.4	5.0	14
	4		4		4		4		4		4		3		
15	60 9 60.0	0.4	59.6	1.1	58.5	1.9	56.6	2.7	53.9	3.4	50.5	4.2	60 9 46.3	4.9	15
	4		4		4		3		4		3		3		
16	60 14 60.0	0.4	59.6	1.1	58.5	2.0	56.5	2.6	53.9	3.5	50.4	4.2	60 14 46.2	4.9	16
	4		4		4		4		4		4		4		
17	60 19 60.0	0.4	59.6	1.1	58.5	2.0	56.5	2.6	53.9	3.5	50.4	4.2	60 19 46.2	5.0	17
	4		4		3		4		3		4		3		
18	60 24 60.0	0.4	59.6	1.2	58.4	1.9	56.5	2.7	53.8	3.4	50.4	4.3	60 24 46.1	5.0	18
	3		4		4		4		4		3		4		
19	60 29 59.9	0.3	59.6	1.2	58.4	1.9	56.5	2.7	53.8	3.5	50.3	4.2	60 29 46.1	5.0	19
	4		3		4		3		3		4		3		
20	60 34 59.9	0.4	59.5	1.1	58.4	2.0	56.4	2.7	53.7	3.4	50.3	4.3	60 34 46.0	5.0	20
	4		4		3		4		4		3		3		
21	60 39 59.9	0.4	59.5	1.2	58.3	1.9	56.4	2.7	53.7	3.5	50.2	4.3	60 39 45.9	5.0	21
	3		4		4		3		3		3		3		
22	60 44 59.8	0.3	59.5	1.2	58.3	2.0	56.3	2.7	53.6	3.5	50.1	4.3	60 44 45.8	5.0	22
	4		3		3		4		3		3		3		
23	60 49 59.8	0.4	59.4	1.2	58.2	1.9	56.3	2.8	53.5	3.5	50.0	4.3	60 49 45.7	5.1	23
	3		3		3		3		3		3		3		
24	60 54 59.7	0.4	59.3	1.2	58.1	1.9	56.2	2.8	53.4	3.5	49.9	4.3	60 54 45.6	5.1	24
	3		3		4		3		3		3		3		
25	60 59 59.6	0.4	59.2	1.1	58.1	2.0	56.1	2.8	53.3	3.5	49.8	4.3	60 59 45.5	5.2	25
	3		3		3		3		3		3		2		
26	61 4 59.5	0.4	59.1	1.1	58.0	2.0	56.0	2.8	53.2	3.5	49.7	4.4	61 4 45.3	5.1	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η
0	58° 54′ 42″.7	5″.4	37″.3	6″.1	31″.2	6″.9	24″.3	7″.6	16″.7	8″.3	8″.4	9″.1	*58° 53′ 59″.3	9″.8	0
	3		2		2		2		2		1		1		
1	58 59 42.6	5.5	37.1	6.1	31.0	6.9	24.1	7.6	16.5	8.4	8.1	9.1	*58 58 59.0	9.8	1
	2		3		2		2		1		1		1		
2	59 4 42.4	5.4	37.0	6.2	30.8	6.9	23.9	7.7	16.2	8.4	7.8	9.1	*59 3 58.7	9.8	2
	3		2		2		2		2		2		2		
3	59 9 42.3	5.5	36.8	6.2	30.6	6.9	23.7	7.7	16.0	8.4	7.6	9.1	*59 8 58.5	9.8	3
	3		3		3		2		2		2		1		
4	59 14 42.2	5.5	36.7	6.2	30.5	7.0	23.5	7.7	15.8	8.4	7.4	9.2	*59 13 58.2	9.9	4
	3		3		2		2		2		1		2		
5	59 19 42.1	5.5	36.6	6.3	30.3	7.0	23.3	7.7	15.6	8.5	7.1	9.1	*59 18 58.0	9.9	5
	3		2		3		3		2		2		1		
6	59 24 42.0	5.6	36.4	6.2	30.2	7.0	23.2	7.8	15.4	8.5	6.9	9.2	*59 23 57.7	9.9	6
	3		3		3		2		2		2		2		
7	59 29 41.9	5.6	36.3	6.2	30.1	7.1	23.0	7.8	15.2	8.5	6.7	9.2	*59 28 57.5	9.9	7
	3		3		2		3		3		2		1		
8	59 34 41.8	5.6	36.2	6.3	29.9	7.0	22.9	7.8	15.1	8.6	6.5	9.3	*59 33 57.2	10.0	8
	3		3		3		2		2		2		2		
9	59 39 41.7	5.6	36.1	6.3	29.8	7.1	22.7	7.8	14.9	8.6	6.3	9.3	*59 38 57.0	10.0	9
	4		4		3		3		3		3		2		
10	59 44 41.7	5.6	36.1	6.4	29.7	7.1	22.6	7.8	14.8	8.6	6.2	9.4	*59 43 56.8	10.1	10
	3		3		3		3		2		2		2		
11	59 49 41.6	5.6	36.0	6.4	29.6	7.1	22.5	7.9	14.6	8.6	6.0	9.4	*59 48 56.6	10.1	11
	3		3		3		2		2		2		2*		
12	59 54 41.5	5.6	35.9	6.4	29.5	7.2	22.3	7.9	14.4	8.6	5.8	9.4	*59 53 56.4	10.2	12
	4		3		3		3		3		2		2		
13	59 59 41.5	5.7	35.8	6.4	29.4	7.2	22.2	7.9	14.3	8.7	5.6	9.4	*59 58 56.2	10.2	13
	3		3		3		3		2		2		1		
14	60 4 41.4	5.7	35.7	6.4	29.3	7.2	22.1	8.0	14.1	8.7	5.4	9.5	*60 3 55.9	10.3	14
	4		3		3		3		3		2		2		
15	60 9 41.4	5.8	35.6	6.4	29.2	7.2	22.0	8.0	14.0	8.8	5.2	9.5	*60 8 55.7	10.3	15
	3		4		3		2		2		2		2		
16	60 14 41.3	5.7	35.6	6.5	29.1	7.3	21.8	8.0	13.8	8.8	5.0	9.5	*60 13 55.5	10.3	16
	3		3		3		3		3		3		2		
17	60 19 41.2	5.7	35.5	6.5	29.0	7.3	21.7	8.0	13.7	8.8	4.9	9.6	*60 18 55.3	10.4	17
	3		3		3		2		2		1		1		
18	60 24 41.1	5.7	35.4	6.5	28.9	7.4	21.5	8.0	13.5	8.9	4.6	9.6	*60 23 55.0	10.4	18
	4		3		2		3		2		2		2		
19	60 29 41.1	5.8	35.3	6.6	28.7	7.3	21.4	8.1	13.3	8.9	4.4	9.6	*60 28 54.8	10.4	19
	3		3		3		2		2		2		2		
20	60 34 41.0	5.8	35.2	6.6	28.6	7.4	21.2	8.1	13.1	8.9	4.2	9.6	*60 33 54.6	10.4	20
	3		2		2		3		2		2		1		
21	60 39 40.9	5.9	35.0	6.6	28.4	7.3	21.1	8.2	12.9	8.9	4.0	9.7	*60 38 54.3	10.5	21
	3		3		3		2		2		2		1		
22	60 44 40.8	5.9	34.9	6.6	28.3	7.4	20.9	8.2	12.7	8.9	3.8	9.8	*60 43 54.0	10.5	22
	2		3		2		2		2		1		2		
23	60 49 40.6	5.8	34.8	6.7	28.1	7.4	20.7	8.2	12.5	9.0	3.5	9.7	*60 48 53.8	10.6	23
	3		2		3		2		2		2		1		
24	60 54 40.5	5.9	34.6	6.6	28.0	7.5	20.5	8.2	12.3	9.0	3.3	9.8	*60 53 53.5	10.6	24
	2		2		2		2		1		1		0		
25	60 59 40.3	5.9	34.4	6.6	27.8	7.5	20.3	8.3	12.0	9.0	3.0	9.9	*60 58 53.1	10.7	25
	3		3		2		2		2		1		1		
26	61 4 40.2	5.9	34.3	6.7	27.6	7.5	20.1	8.3	11.8	9.1	2.7	9.9	*61 3 52.8	10.7	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	$\xi=0$		$\xi=1$		$\xi=2$		$\xi=3$		$\xi=4$		$\xi=5$		$\xi=6$		η
0	57° 54′ 60″.5 (3)	0″.4	60″.1 (3)	1″.0	59″.1 (3)	1″.8	57″ 3 (3)	2″.4	54″.9 (3)	3″.1	51″.8 (2)	3″.9	57° 54′ 47″.9 (3)	4″.5	0
1	57 59 60.4 (3)	0.4	60.0 (3)	1.0	59.0 (3)	1.8	57.2 (3)	2.4	54.8 (3)	3.2	51.6 (3)	3.8	57 59 47.8 (3)	4.5	1
2	58 4 60.3 (3)	0.4	59.9 (4)	1.0	58.9 (3)	1.8	57.1 (3)	2.4	54.7 (3)	3.2	51.5 (3)	3.8	58 4 47.7 (3)	4.6	2
3	58 9 60.2 (3)	0.3	59.9 (3)	1.1	58.8 (3)	1.8	57.0 (4)	2.4	54.6 (3)	3.2	51.4 (3)	3.8	58 9 47.6 (3)	4.6	3
4	58 14 60.1 (4)	0.3	59.8 (4)	1.1	58.7 (4)	1.7	57.0 (3)	2.5	54.5 (4)	3.2	51.3 (4)	3.8	58 14 47.5 (3)	4.6	4
5	58 19 60.1 (4)	0.3	59.8 (3)	1.1	58.7 (3)	1.8	56.9 (4)	2.4	54.5 (3)	3.2	51.3 (3)	3.9	58 19 47.4 (3)	4.6	5
6	58 24 60.1 (3)	0.4	59.7 (4)	1.1	58.6 (4)	1.7	56.9 (3)	2.5	54.4 (3)	3.2	51.2 (3)	3.9	58 24 47.3 (3)	4.6	6
7	58 29 60.0 (4)	0.3	59.7 (4)	1.1	58.6 (4)	1.8	56.8 (4)	2.5	54.3 (4)	3.2	51.1 (4)	3.9	58 29 47.2 (4)	4.6	7
8	58 34 60.0 (4)	0.3	59.7 (3)	1.1	58.6 (4)	1.8	56.8 (4)	2.5	54.3 (4)	3.2	51.1 (3)	3.9	58 34 47.2 (3)	4.7	8
9	58 39 60.0 (4)	0.4	59.6 (4)	1.0	58.6 (4)	1.8	56.8 (4)	2.5	54.3 (4)	3.3	51.0 (4)	3.9	58 39 47.1 (4)	4.6	9
10	58 44 60.0 (4)	0.4	59.6 (4)	1.0	58.6 (4)	1.8	56.8 (3)	2.5	54.3 (3)	3.3	51.0 (4)	3.9	58 44 47.1 (3)	4.7	10
11	58 49 60.0 (4)	0.4	59.6 (4)	1.0	58.6 (3)	1.9	56.7 (4)	2.5	54.2 (4)	3.2	51.0 (3)	4.0	58 49 47.0 (4)	4.7	11
12	58 54 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (4)	2.5	54.2 (4)	3.3	50.9 (4)	3.9	58 54 47.0 (3)	4.7	12
13	58 59 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (4)	2.5	54.2 (4)	3.3	50.9 (4)	4.0	58 59 46.9 (4)	4.7	13
14	59 4 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (4)	2.5	54.2 (3)	3.3	50.9 (4)	4.0	59 4 46.9 (3)	4.8	14
15	59 9 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (4)	2.6	54.1 (4)	3.2	50.9 (3)	4.1	59 9 46.8 (4)	4.7	15
16	59 14 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (4)	2.6	54.1 (4)	3.3	50.8 (4)	4.0	59 14 46.8 (3)	4.8	16
17	59 19 60.0 (4)	0.4	59.6 (4)	1.1	58.5 (4)	1.8	56.7 (3)	2.6	54.1 (4)	3.3	50.8 (3)	4.1	59 19 46.7 (4)	4.7	17
18	59 24 60.0 (3)	0.4	59.6 (4)	1.1	58.5 (4)	1.9	56.6 (4)	2.5	54.1 (3)	3.4	50.7 (4)	4.0	59 24 46.7 (3)	4.8	18
19	59 29 59.9 (4)	0.3	59.6 (4)	1.1	58.5 (3)	1.9	56.6 (4)	2.6	54.0 (4)	3.3	50.7 (3)	4.1	59 29 46.6 (3)	4.8	19
20	59 34 59.9 (4)	0.3	59.6 (3)	1.2	58.4 (4)	1.8	56.6 (3)	2.6	54.0 (3)	3.4	50.6 (4)	4.1	59 34 46.5 (4)	4.8	20
21	59 39 59.9 (3)	0.4	59.5 (4)	1.1	58.4 (3)	1.9	56.5 (4)	2.6	53.9 (4)	3.3	50.6 (3)	4.1	59 39 46.5 (3)	4.9	21
22	59 44 59.8 (4)	0.3	59.5 (3)	1.2	58.3 (4)	1.8	56.5 (3)	2.6	53.9 (3)	3.4	50.5 (3)	4.1	59 44 46.4 (3)	4.9	22
23	59 49 59.8 (3)	0.4	59.4 (3)	1.1	58.3 (3)	1.9	56.4 (3)	2.6	53.8 (3)	3.4	50.4 (3)	4.1	59 49 46.3 (3)	4.9	23
24	59 54 59.7 (3)	0.4	59.3 (3)	1.1	58.2 (3)	1.9	56.3 (3)	2.6	53.7 (3)	3.4	50.3 (3)	4.1	59 54 46.2 (2)	4.9	24
25	59 59 59.6 (3)	0.4	59.2 (4)	1.1	58.1 (3)	1.9	56.2 (3)	2.6	53.6 (3)	3.4	50.2 (3)	4.2	59 59 46.0 (3)	4.9	25
26	60 4 59.5	0.3	59.2	1.2	58.0	1.9	56.1	2.6	53.5	3.4	50.1	4.2	60 4 45.9	4.9	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c=0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η'
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	57 54 43.4	5.2	38.2	5.9	32.3	6.6	25.7	7.3	18.4	8.0	10.4	8.7	57 54 1.7	9.4	0
	3		2		2		2		1		1		1		
1	57 59 43.3	5.3	38.0	5.9	32.1	6.6	25.5	7.4	18.1	8.0	10.1	8.7	57 59 1.4	9.4	1
	2		3		2		2		2		2		1		
2	58 4 43.1	5.2	37.9	6.0	31.9	6.6	25.3	7.4	17.9	8.0	9.9	8.8	58 4 1.1	9.5	2
	3		2		3		2		2		1		2		
3	58 9 43.0	5.3	37.7	5.9	31.8	6.7	25.1	7.4	17.7	8.1	9.6	8.7	58 9 0.9	9.5	3
	.3		3		2		2		2		2		1		
4	58 14 42.9	5.3	37.6	6.0	31.6	6.7	24.9	7.4	17.5	8.1	9.4	8.8	58 14 0.6	9.5	4
	3		3		3		3		2		2		2		
5	58 19 42.8	5.3	37.5	6.0	31.5	6.7	24.8	7.5	17.3	8.1	9.2	8.8	58 19 0.4	9.5	5
	3		3		2		2		2		2		1		
6	58 24 42.7	5.3	37.4	6.1	31.3	6.7	24.6	7.5	17.1	8.1	9.0	8.9	58 24 0.1	9.6	6
	3		3		3		3		3		2		2		
7	58 29 42.6	5.3	37.3	6.1	31.2	6.7	24.5	7.5	17.0	8.2	8.8	8.9	*58 28 59.9	9.6	7
	3		3		3		2		2		2		2		
8	58 34 42.5	5.3	37.2	6.1	31.1	6.8	24.3	7.5	16.8	8.2	8.6	8.9	*58 33 59.7	9.6	8
	4		3		3		3		3		2		2		
9	58 39 42.5	5.4	37.1	6.1	31.0	6.8	24.2	7.5	16.7	8.3	8.4	8.9	*58 38 59.5	9.6	9
	3		3		3		3		2		2		2		
10	58 44 42.4	5.4	37.0	6.1	30.9	6.8	24.1	7.6	16.5	8.3	8.2	8.9	*58 43 59.3	9.6	10
	3		3		3		2		3		3		2		
11	58 49 42.3	5.4	36.9	6.1	30.8	6.9	23.9	7.5	16.4	8.3	8.1	9.0	*58 48 59.1	9.7	11
	4		3		3		3		2		2		2		
12	58 54 42.3	5.5	36.8	6.1	30.7	6.9	23.8	7.6	16.2	8.3	7.9	9.0	*58 53 58.9	9.7	12
	3		4		3		3		3		2		1		
13	58 59 42.2	5.4	36.8	6.2	30.6	6.9	23.7	7.6	16.1	8.4	7.7	9.1	*58 58 58.6	9.8	13
	3		3		3		3		2		2		2		
14	59 4 42.1	5.4	36.7	6.2	30.5	6.9	23.6	7.7	15.9	8.4	7.5	9.1	*59 3 58.4	9.8	14
	4		3		3		3		3		3		3		
15	59 9 42.1	5.5	36.6	6.2	30.4	6.9	23.5	7.7	15.8	8.4	7.4	9.1	*59 8 58.3	9.8	15
	3		3		3		2		2		2		1		
16	59 14 42.0	5.5	36.5	6.2	30.3	7.0	23.3	7.7	15.6	8.4	7.2	9.2	*59 13 58.0	9.9	16
	4		3		3		3		3		2		2		
17	59 19 42.0	5.6	36.4	6.2	30.2	7.0	23.2	7.7	15.5	8.5	7.0	9.2	*59 18 57.8	9.9	17
	3		3		3		3		2		2		2		
18	59 24 41.9	5.6	36.3	6.2	30.1	7.0	23.1	7.8	15.3	8.5	6.8	9.2	*59 23 57.6	9.9	18
	3		3		3		2		2		2		2		
19	59 29 41.8	5.6	36.2	6.2	30.0	7.1	22.9	7.8	15.1	8.5	6.6	9.2	*59 28 57.4	9.9	19
	3		3		2		3		3		2		1		
20	59 34 41.7	5.6	36.1	6.3	29.8	7.0	22.8	7.8	15.0	8.6	6.4	9.3	*59 33 57.1	10.0	20
	3		3		3		2		2		2		2		
21	59 39 41.6	5.6	36.0	6.3	29.7	7.1	22.6	7.8	14.8	8.6	6.2	9.3	*59 38 56.9	10.0	21
	3		3		3		3		2		2		2		
22	59 44 41.5	5.6	35.9	6.3	29.6	7.1	22.5	7.9	14.6	8.6	6.0	9.3	*59 43 56.7	10.0	22
	3		3		2		2		2		2		1		
23	59 49 41.4	5.6	35.8	6.4	29.4	7.1	22.3	7.9	14.4	8.6	5.8	9.4	*59 48 56.4	10.1	23
	3		2		2		2		2		1		1		
24	59 54 41.3	5.7	35.6	6.4	29.2	7.1	22.1	7.9	14.2	8.7	5.5	9.4	*59 53 56.1	10.1	24
	2		3		2		2		1		1		1		
25	59 59 41.1	5.6	35.5	6.5	29.0	7.1	21.9	8.0	13.9	8.7	5.2	9.4	*59 58 55.8	10.1	25
	3		2		2		1		2		2		1		
26	60 4 41.0	5.7	35.3	6.5	28.8	7.2	21.6	7.9	13.7	8.7	5.0	9.5	*60 3 55.5	10.2	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	$\xi = 0$		$\xi = 1$		$\xi = 2$		$\xi = 3$		$\xi = 4$		$\xi = 5$		$\xi = 6$		η
0	56° 54′ 60″.5	0″.4	60″.1	1″.0	59″.1	1″.7	57″.4	2″.3	55″.1	3″.0	52″.1	3″.7	56° 54′ 48″.4	4″.3	0
	3		3		3		3		3		3		3		
1	56 59 60.4	0.4	60.0	1.0	59.0	1.7	57.3	2.3	55.0	3.0	52.0	3.7	56 59 48.3	4.4	1
	3		3		3		3		3		3		2		
2	57 4 60.3	0.4	59.9	1.0	58.9	1.7	57.2	2.3	54.9	3.0	51.9	3.8	57 4 48.1	4.3	2
	3		4		4		4		3		3		3		
3	57 9 60.2	0.3	59.9	1.0	58.9	1.7	57.2	2.4	54.8	3.0	51.8	3.8	57 9 48.0	4.4	3
	3		3		3		3		3		3		3		
4	57 14 60.1	0.3	59.8	1.0	58.8	1.7	57.1	2.4	54.7	3.0	51.7	3.8	57 14 47.9	4.4	4
	4		4		3		3		4		3		4		
5	57 19 60.1	0.3	59.8	1.1	58.7	1.7	57.0	2.3	54.7	3.1	51.6	3.7	57 19 47.9	4.5	5
	4		3		4		4		3		3		3		
6	57 24 60.1	0.4	59.7	1.0	58.7	1.7	57.0	2.4	54.6	3.1	51.5	3.7	57 24 47.8	4.5	6
	3		4		4		4		4		4		3		
7	57 29 60.0	0.3	59.7	1.0	58.7	1.7	57.0	2.4	54.6	3.1	51.5	3.8	57 29 47.7	4.4	7
	4		4		4		3		3		3		4		
8	57 34 60.0	0.3	59.7	1.0	58.7	1.8	56.9	2.4	54.5	3.1	51.4	3.7	57 34 47.7	4.5	8
	4		4		3		4		4		4		3		
9	57 39 60.0	0.3	59.7	1.1	58.6	1.7	56.9	2.4	54.5	3.1	51.4	3.8	57 39 47.6	4.5	9
	4		4		4		4		4		4		4		
10	57 44 60.0	0.3	59.7	1.1	58.6	1.7	56.9	2.4	54.5	3.1	51.4	3.8	57 44 47.6	4.5	10
	4		3		4		4		3		3		3		
11	57 49 60.0	0.4	59.6	1.0	58.6	1.7	56.9	2.5	54.4	3.1	51.3	3.8	57 49 47.5	4.5	11
	4		4		4		4		4		4		4		
12	57 54 60.0	0.4	59.6	1.0	58.6	1.7	56.9	2.5	54.4	3.1	51.3	3.8	57 54 47.5	4.6	12
	4		4		4		4		4		4		3		
13	57 59 60.0	0.4	59.6	1.0	58.6	1.7	56.9	2.5	54.4	3.1	51.3	3.9	57 59 47.4	4.5	13
	4		4		4		3		4		3		4		
14	58 4 60.0	0.4	59.6	1.0	58.6	1.8	56.8	2.4	54.4	3.2	51.2	3.8	58 4 47.4	4.6	14
	4		4		4		4		4		4		3		
15	58 9 60.0	0.4	59.6	1.0	58.6	1.8	56.8	2.4	54.4	3.2	51.2	3.9	58 9 47.3	4.5	15
	4		4		4		4		3		4		4		
16	58 14 60.0	0.4	59.6	1.0	58.6	1.8	56.8	2.5	54.3	3.1	51.2	3.9	58 14 47.3	4.6	16
	4		4		4		4		4		3		4		
17	58 19 60.0	0.4	59.6	1.0	58.6	1.8	56.8	2.5	54.3	3.2	51.1	3.8	58 19 47.3	4.6	17
	4		4		3		4		4		4		3		
18	58 24 60.0	0.4	59.6	1.1	58.5	1.7	56.8	2.5	54.3	3.2	51.1	3.9	58 24 47.2	4.6	18
	3		4		4		3		3		3		3		
19	58 29 59.9	0.3	59.6	1.1	58.5	1.8	56.7	2.5	54.2	3.2	51.0	3.9	58 29 47.1	4.6	19
	4		4		4		4		4		4		4		
20	58 34 59.9	0.3	59.6	1.1	58.5	1.8	56.7	2.5	54.2	3.2	51.0	3.9	58 34 47.1	4.7	20
	4		3		4		4		4		3		3		
21	58 39 59.9	0.4	59.5	1.0	58.5	1.8	56.7	2.5	54.2	3.3	50.9	3.9	58 39 47.0	4.7	21
	3		4		3		3		3		4		3		
22	58 44 59.8	0.3	59.5	1.1	58.4	1.8	56.6	2.5	54.1	3.2	50.9	4.0	58 44 46.9	4.7	22
	4		3		3		3		3		3		3		
23	58 49 59.8	0.4	59.4	1.1	58.3	1.8	56.5	2.5	54.0	3.2	50.8	4.0	58 49 46.8	4.7	23
	3		4		4		4		3		3		3		
24	58 54 59.7	0.3	59.4	1.1	58.3	1.8	56.5	2.6	53.9	3.2	50.7	4.0	58 54 46.7	4.7	24
	3		3		3		3		3		3		3		
25	58 59 59.6	0.3	59.3	1.1	58.2	1.8	56.4	2.6	53.8	3.2	50.6	4.0	58 59 46.6	4.8	25
	3		3		3		3		3		2		2		
26	59 4 59.5	0.3	59.2	1.1	58.1	1.8	56.3	2.6	53.7	3.3	50.4	4.0	59 4 46.4	4.7	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

Prontuari delle Decl.: Zona + 58°

η'	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η'
0	56° 54′ 44″.1	5″.1	39″.0	5″.7	33″.3	6″.3	27″.0	7″.0	20″.0	7″.7	12″.3	8″.4	56° 54′ 3″.9	9″.1	0
1	56 59 43.9	5.0	38.9	5.7	33.2	6.4	26.8	7.1	19.7	7.7	12.0	8.4	56 59 3.6	9.1	1
2	57 4 43.8	5.1	38.7	5.7	33.0	6.4	26.6	7.1	19.5	7.7	11.8	8.4	57 4 3.4	9.1	2
3	57 9 43.6	5.0	38.6	5.8	32.8	6.4	26.4	7.1	19.3	7.8	11.5	8.4	57 9 3.1	9.1	3
4	57 14 43.5	5.1	38.4	5.7	32.7	6.5	26.2	7.1	19.1	7.8	11.3	8.4	57 14 2.9	9.1	4
5	57 19 43.4	5.1	38.3	5.8	32.5	6.4	26.1	7.1	19.0	7.9	11.1	8.5	57 19 2.6	9.2	5
6	57 24 43.3	5.1	38.2	5.8	32.4	6.5	25.9	7.1	18.8	7.9	10.9	8.5	57 24 2.4	9.2	6
7	57 29 43.3	5.2	38.1	5.8	32.3	6.5	25.8	7.2	18.6	7.9	10.7	8.5	57 29 2.2	9.2	7
8	57 34 43.2	5.2	38.0	5.8	32.2	6.5	25.7	7.2	18.5	7.9	10.6	8.6	57 34 2.0	9.3	8
9	57 39 43.1	5.1	38.0	5.9	32.1	6.5	25.6	7.3	18.3	7.9	10.4	8.6	57 39 1.8	9.3	9
10	57 44 43.1	5.2	37.9	5.9	32.0	6.6	25.4	7.2	18.2	8.0	10.2	8.6	57 44 1.6	9.3	10
11	57 49 43.0	5.2	37.8	5.9	31.9	6.6	25.3	7.3	18.0	7.9	10.1	8.7	57 49 1.4	9.4	11
12	57 54 42.9	5.2	37.7	5.9	31.8	6.6	25.2	7.3	17.9	8.0	9.9	8.7	57 54 1.2	9.4	12
13	57 59 42.9	5.2	37.7	6.0	31.7	6.6	25.1	7.3	17.8	8.1	9.7	8.7	57 59 1.0	9.4	13
14	58 4 42.8	5.2	37.6	6.0	31.6	6.6	25.0	7.4	17.6	8.0	9.6	8.8	58 4 0.8	9.5	14
15	58 9 42.8	5.3	37.5	6.0	31.5	6.6	24.9	7.4	17.5	8.1	9.4	8.8	58 9 0.6	9.5	15
16	58 14 42.7	5.3	37.4	6.0	31.4	6.7	24.7	7.4	17.3	8.1	9.2	8.8	58 14 0.4	9.5	16
17	58 19 42.7	5.4	37.3	6.0	31.3	6.7	24.6	7.4	17.2	8.1	9.1	8.9	58 19 0.2	9.6	17
18	58 24 42.6	5.3	37.3	6.1	31.2	6.7	24.5	7.5	17.0	8.1	8.9	8.9	58 24 0.0	9.6	18
19	58 29 42.5	5.3	37.2	6.1	31.1	6.7	24.4	7.5	16.9	8.2	8.7	8.9	*58 28 59.8	9.6	19
20	58 34 42.4	5.3	37.1	6.1	31.0	6.8	24.2	7.5	16.7	8.2	8.5	8.9	*58 33 59.6	9.6	20
21	58 39 42.3	5.3	37.0	6.1	30.9	6.8	24.1	7.6	16.5	8.2	8.3	8.9	*58 38 59.4	9.6	21
22	58 44 42.2	5.4	36.8	6.1	30.7	6.8	23.9	7.5	16.4	8.3	8.1	9.0	*58 43 59.1	9.7	22
23	58 49 42.1	5.4	36.7	6.1	30.6	6.9	23.7	7.5	16.2	8.3	7.9	9.0	*58 48 58.9	9.7	23
24	58 54 42.0	5.4	36.6	6.2	30.4	6.9	23.5	7.6	15.9	8.3	7.6	9.0	*58 53 58.6	9.7	24
25	58 59 41.8	5.4	36.4	6.2	30.2	6.9	23.3	7.6	15.7	8.3	7.4	9.1	*58 58 58.3	9.8	25
26	59 4 41.7	5.5	36.2	6.2	30.0	6.9	23.1	7.6	15.5	8.4	7.1	9.1	*59 3 58.0	9.8	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	ξ = 0		ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η'
0	55° 54′ 60″.5	0″.4	60″.1	0″.9	59″.2	1″.6	57″.6	2″.3	55″.3	2″.9	52″.4	3″.5	55° 54′ 48″.9	4″.2	0
1	(3) 55 59 60.4	0.4	(3) 60.0	0.9	(3) 59.1	1.6	(3) 57.5	2.3	(3) 55.2	2.9	(3) 52.3	3.6	(2) 55 59 48.7	4.2	1
2	(3) 56 4 60.3	0.3	(4) 60.0	1.0	(3) 59.0	1.6	(3) 57.4	2.3	(3) 55.1	2.9	(3) 52.2	3.6	(3) 56 4 48.6	4.2	2
3	(3) 56 9 60.2	0.3	(3) 59.9	1.0	(3) 58.9	1.6	(3) 57.3	2.3	(3) 55.0	2.9	(3) 52.1	3.6	(3) 56 9 48.5	4.2	3
4	(3) 56 14 60.1	0.3	(3) 59.8	1.0	(3) 58.8	1.6	(3) 57.2	2.3	(3) 54.9	2.9	(3) 52.0	3.6	(3) 56 14 48.4	4.2	4
5	(4) 56 19 60.1	0.3	(4) 59.8	1.0	(4) 58.8	1.6	(4) 57.2	2.3	(4) 54.9	3.0	(3) 51.9	3.6	(3) 56 19 48.3	4.2	5
6	(4) 56 24 60.1	0.4	(3) 59.7	0.9	(4) 58.8	1.7	(3) 57.1	2.3	(3) 54.8	2.9	(4) 51.9	3.7	(3) 56 24 48.2	4.2	6
7	(3) 56 29 60.0	0.3	(4) 59.7	1.0	(3) 58.7	1.6	(4) 57.1	2.3	(4) 54.8	3.0	(3) 51.8	3.6	(4) 56 29 48.2	4.3	7
8	(4) 56 34 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(3) 57.0	2.3	(3) 54.7	2.9	(4) 51.8	3.7	(3) 56 34 48.1	4.3	8
9	(4) 56 39 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(4) 57.0	2.3	(4) 54.7	3.0	(3) 51.7	3.6	(4) 56 39 48.1	4.3	9
10	(4) 56 44 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(4) 57.0	2.3	(4) 54.7	3.0	(4) 51.7	3.7	(3) 56 44 48.0	4.3	10
11	(4) 56 49 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(4) 57.0	2.3	(4) 54.7	3.0	(4) 51.7	3.7	(4) 56 49 48.0	4.4	11
12	(4) 56 54 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(4) 57.0	2.4	(3) 54.6	3.0	(3) 51.6	3.7	(3) 56 54 47.9	4.3	12
13	(4) 56 59 60.0	0.3	(4) 59.7	1.0	(4) 58.7	1.7	(4) 57.0	2.4	(4) 54.6	3.0	(4) 51.6	3.7	(4) 56 59 47.9	4.4	13
14	(4) 57 4 60.0	0.3	(4) 59.7	1.1	(3) 58.6	1.6	(4) 57.0	2.4	(4) 54.6	3.0	(4) 51.6	3.7	(4) 57 4 47.9	4.4	14
15	(4) 57 9 60.0	0.3	(4) 59.7	1.1	(4) 58.6	1.6	(4) 57.0	2.4	(4) 54.6	3.1	(3) 51.5	3.7	(3) 57 9 47.8	4.4	15
16	(4) 57 14 60.0	0.4	(3) 59.6	1.0	(4) 58.6	1.7	(3) 56.9	2.3	(4) 54.6	3.1	(4) 51.5	3.7	(4) 57 14 47.8	4.4	16
17	(4) 57 19 60.0	0.4	(4) 59.6	1.0	(4) 58.6	1.7	(4) 56.9	2.4	(3) 54.5	3.0	(4) 51.5	3.8	(3) 57 19 47.7	4.4	17
18	(4) 57 24 60.0	0.4	(4) 59.6	1.0	(4) 58.6	1.7	(4) 56.9	2.4	(4) 54.5	3.1	(3) 51.4	3.7	(4) 57 24 47.7	4.5	18
19	(3) 57 29 59.9	0.3	(4) 59.6	1.0	(4) 58.6	1.7	(4) 56.9	2.4	(4) 54.5	3.1	(4) 51.4	3.8	(3) 57 29 47.6	4.4	19
20	(4) 57 34 59.9	0.3	(4) 59.6	1.0	(4) 58.6	1.8	(3) 56.8	2.4	(3) 54.4	3.1	(3) 51.3	3.7	(4) 57 34 47.6	4.5	20
21	(4) 57 39 59.9	0.4	(3) 59.5	1.0	(3) 58.5	1.7	(4) 56.8	2.4	(4) 54.4	3.1	(4) 51.3	3.8	(3) 57 39 47.5	4.5	21
22	(3) 57 44 59.8	0.3	(4) 59.5	1.0	(4) 58.5	1.8	(3) 56.7	2.4	(3) 54.3	3.1	(3) 51.2	3.8	(3) 57 44 47.4	4.5	22
23	(4) 57 49 59.8	0.4	(3) 59.4	1.0	(3) 58.4	1.7	(4) 56.7	2.5	(3) 54.2	3.1	(3) 51.1	3.8	(3) 57 49 47.3	4.5	23
24	(3) 57 54 59.7	0.3	(4) 59.4	1.1	(3) 58.3	1.7	(3) 56.6	2.5	(3) 54.1	3.1	(3) 51.0	3.8	(3) 57 54 47.2	4.5	24
25	(3) 57 59 59.6	0.3	(3) 59.3	1.1	(3) 58.2	1.7	(3) 56.5	2.5	(3) 54.0	3.1	(3) 50.9	3.8	(3) 57 59 47.1	4.6	25
26	(3) 58 4 59.5	0.3	(3) 59.2	1.1	(3) 58.1	1.7	(3) 56.4	2.5	(3) 53.9	3.1	(3) 50.8	3.9	(2) 58 4 46.9	4.5	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η
0	55° 54′ 44″.7	4″.9	39″.8	5″.5	34″.3	6″.1	28″.2	6″.7	21″.5	7″.4	14″.1	8″.1	55° 54′ 6″.0	8″.8	0
1	55 59 44.5	4.8	39.7	5.5	34.2	6.2	28.0	6.7	21.3	7.5	13.8	8.1	55 59 5.7	8.8	1
2	56 4 44.4	4.9	39.5	5.5	34.0	6.2	27.8	6.8	21.0	7.4	13.6	8.1	56 4 5.5	8.8	2
3	56 9 44.3	4.9	39.4	5.6	33.8	6.1	27.7	6.9	20.8	7.4	13.4	8.2	56 9 5.2	8.9	3
4	56 14 44.2	5.0	39.2	5.5	33.7	6.2	27.5	6.8	20.7	7.5	13.2	8.2	56 14 5.0	8.9	4
5	56 19 44.1	5.0	39.1	5.5	33.6	6.2	27.4	6.9	20.5	7.5	13.0	8.2	56 19 4.8	8.9	5
6	56 24 44.0	5.0	39.0	5.5	33.5	6.3	27.2	6.9	20.3	7.5	12.8	8.2	56 24 4.6	8.9	6
7	56 29 43.9	4.9	39.0	5.7	33.3	6.2	27.1	6.9	20.2	7.6	12.6	8.2	56 29 4.4	8.9	7
8	56 34 43.8	4.9	38.9	5.7	33.2	6.2	27.0	7.0	20.0	7.6	12.4	8.2	56 34 4.2	8.9	8
9	56 39 43.8	5.0	38.8	5.7	33.1	6.3	26.8	6.9	19.9	7.6	12.3	8.3	56 39 4.0	9.0	9
10	56 44 43.7	5.0	38.7	5.7	33.0	6.3	26.7	7.0	19.7	7.6	12.1	8.3	56 44 3.8	9.0	10
11	56 49 43.6	5.0	38.6	5.6	33.0	6.4	26.6	7.0	19.6	7.7	11.9	8.3	56 49 3.6	9.0	11
12	56 54 43.6	5.0	38.6	5.7	32.9	6.4	26.5	7.0	19.5	7.7	11.8	8.4	56 54 3.4	9.1	12
13	56 59 43.5	5.0	38.5	5.7	32.8	6.4	26.4	7.0	19.4	7.8	11.6	8.4	56 59 3.2	9.1	13
14	57 4 43.5	5.1	38.4	5.7	32.7	6.4	26.3	7.1	19.2	7.7	11.5	8.4	57 4 3.1	9.1	14
15	57 9 43.4	5.0	38.4	5.8	32.6	6.4	26.2	7.1	19.1	7.8	11.3	8.4	57 9 2.9	9.1	15
16	57 14 43.4	5.1	38.3	5.8	32.5	6.4	26.1	7.1	19.0	7.8	11.2	8.5	57 14 2.7	9.2	16
17	57 19 43.3	5.1	38.2	5.8	32.4	6.4	26.0	7.2	18.8	7.8	11.0	8.5	57 19 2.5	9.2	17
18	57 24 43.2	5.1	38.1	5.8	32.3	6.5	25.8	7.1	18.7	7.9	10.8	8.5	57 24 2.3	9.2	18
19	57 29 43.2	5.2	38.0	5.8	32.2	6.5	25.7	7.2	18.5	7.9	10.6	8.5	57 29 2.1	9.2	19
20	57 34 43.1	5.2	37.9	5.8	32.1	6.5	25.6	7.2	18.4	7.9	10.5	8.6	57 34 1.9	9.3	20
21	57 39 43.0	5.2	37.8	5.8	32.0	6.6	25.4	7.2	18.2	7.9	10.3	8.6	57 39 1.7	9.3	21
22	57 44 42.9	5.2	37.7	5.9	31.8	6.5	25.3	7.3	18.0	7.9	10.1	8.7	57 44 1.4	9.4	22
23	57 49 42.8	5.2	37.6	5.9	31.7	6.6	25.1	7.3	17.8	7.9	9.9	8.7	57 49 1.2	9.4	23
24	57 54 42.7	5.3	37.4	5.9	31.5	6.6	24.9	7.3	17.6	8.0	9.6	8.7	57 54 0.9	9.4	24
25	57 59 42.5	5.2	37.3	5.9	31.4	6.7	24.7	7.3	17.4	8.0	9.4	8.7	57 59 0.7	9.4	25
26	58 4 42.4	5.3	37.1	5.9	31.2	6.7	24.5	7.3	17.2	8.1	9.1	8.7	58 4 0.4	9.4	26

μ (unità 0″.1)

$\Delta\eta'=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c=0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

Prontuari delle Decl.: Zona + 56°

η'	$\xi=0$		$\xi=1$		$\xi=2$		$\xi=3$		$\xi=4$		$\xi=5$		$\xi=6$		η'
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	54 54 60.5	0.4	60.1	0.9	59.2	1.5	57.7	2.2	55.5	2.8	52.7	3.4	54 54 49.3	4.1	0
1	54 59 60.4	0.3	60.1	1.0	59.1	1.5	57.6	2.2	55.4	2.8	52.6	3.4	54 59 49.2	4.1	1
2	55 4 60.3	0.3	60.0	1.0	59.0	1.5	57.5	2.3	55.3	2.8	52.5	3.5	55 4 49.0	4.0	2
3	55 9 60.2	0.3	59.9	0.9	59.0	1.6	57.4	2.2	55.2	2.8	52.4	3.5	55 9 48.9	4.1	3
4	55 14 60.1	0.3	59.8	0.9	58.9	1.6	57.3	2.2	55.1	2.8	52.3	3.5	55 14 48.8	4.1	4
5	55 19 60.1	0.3	59.8	1.0	58.8	1.5	57.3	2.2	55.1	2.9	52.2	3.4	55 19 48.8	4.1	5
6	55 24 60.1	0.4	59.7	0.9	58.8	1.6	57.2	2.2	55.0	2.8	52.2	3.5	55 24 48.7	4.1	6
7	55 29 60.1	0.4	59.7	0.9	58.8	1.6	57.2	2.2	55.0	2.9	52.1	3.5	55 29 48.6	4.1	7
8	55 34 60.1	0.4	59.7	0.9	58.8	1.6	57.2	2.3	54.9	2.8	52.1	3.5	55 34 48.6	4.2	8
9	55 39 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.2	54.9	2.9	52.0	3.5	55 39 48.5	4.1	9
10	55 44 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.2	54.9	2.9	52.0	3.5	55 44 48.5	4.2	10
11	55 49 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.2	54.9	2.9	52.0	3.6	55 49 48.4	4.2	11
12	55 54 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.3	54.8	2.9	51.9	3.5	55 54 48.4	4.2	12
13	55 59 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.3	54.8	2.9	51.9	3.5	55 59 48.4	4.3	13
14	56 4 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.3	54.8	2.9	51.9	3.6	56 4 48.3	4.2	14
15	56 9 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.3	54.8	2.9	51.9	3.6	56 9 48.3	4.3	15
16	56 14 60.0	0.3	59.7	1.0	58.7	1.7	57.0	2.2	54.8	3.0	51.8	3.6	56 14 48.2	4.2	16
17	56 19 60.0	0.3	59.7	1.0	58.7	1.7	57.0	2.3	54.7	2.9	51.8	3.6	56 19 48.2	4.3	17
18	56 24 60.0	0.4	59.6	0.9	58.7	1.7	57.0	2.3	54.7	2.9	51.8	3.7	56 24 48.1	4.2	18
19	56 29 59.9	0.3	59.6	1.0	58.6	1.6	57.0	2.3	54.7	3.0	51.7	3.6	56 29 48.1	4.3	19
20	56 34 59.9	0.3	59.6	1.0	58.6	1.7	56.9	2.3	54.6	2.9	51.7	3.7	56 34 48.0	4.3	20
21	56 39 59.9	0.3	59.6	1.0	58.6	1.7	56.9	2.3	54.6	3.0	51.6	3.7	56 39 47.9	4.3	21
22	56 44 59.8	0.3	59.5	1.0	58.5	1.6	56.9	2.4	54.5	3.0	51.5	3.6	56 44 47.9	4.4	22
23	56 49 59.8	0.3	59.5	1.0	58.5	1.7	56.8	2.4	54.4	3.0	51.4	3.6	56 49 47.8	4.4	23
24	56 54 59.7	0.3	59.4	1.0	58.4	1.7	56.7	2.3	54.4	3.1	51.3	3.6	56 54 47.7	4.4	24
25	56 59 59.6	0.3	59.3	1.0	58.3	1.7	56.6	2.3	54.3	3.1	51.2	3.7	56 59 47.5	4.3	25
26	57 4 59.5	0.3	59.2	1.0	58.2	1.7	56.5	2.4	54.1	3.0	51.1	3.7	57 4 47.4	4.4	26

μ (unità 0″.1)

$\Delta\eta' =$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c = 0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	$\xi=7$		$\xi=8$		$\xi=9$		$\xi=10$		$\xi=11$		$\xi=12$		$\xi=13$		η'
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	54 54 45.2	4.6	40.6	5.3	35.3	5.9	29.4	6.5	22.9	7.1	15.8	7.8	54 54 8.0	8.4	0
	3		2		2		2		2		1		1		
1	54 59 45.1	4.7	40.4	5.3	35.1	5.9	29.2	6.5	22.7	7.2	15.5	7.8	54 59 7.7	8.4	1
	3		3		3		2		2		2		2		
2	55 4 45.0	4.7	40.3	5.3	35.0	6.0	29.0	6.5	22.5	7.2	15.3	7.8	55 4 7.5	8.4	2
	2		2		2		3		2		2		2		
3	55 9 44.8	4.7	40.1	5.3	34.8	5.9	28.9	6.6	22.3	7.2	15.1	7.8	55 9 7.3	8.4	3
	3		3		3		2		2		2		1		
4	55 14 44.7	4.7	40.0	5.3	34.7	6.0	28.7	6.6	22.1	7.2	14.9	7.9	55 14 7.0	8.5	4
	4		3		3		3		3		2		2		
5	55 19 44.7	4.8	39.9	5.3	34.6	6.0	28.6	6.6	22.0	7.3	14.7	7.9	55 19 6.8	8.5	5
	3		3		2		2		2		2		2		
6	55 24 44.6	4.8	39.8	5.4	34.4	6.0	28.4	6.6	21.8	7.3	14.5	7.9	55 24 6.6	8.5	6
	3		3		3		3		2		2		2		
7	55 29 44.5	4.8	39.7	5.4	34.3	6.0	28.3	6.7	21.6	7.3	14.3	7.9	55 29 6.4	8.5	7
	3		3		3		3		3		3		2		
8	55 34 44.4	4.8	39.6	5.4	34.2	6.0	28.2	6.7	21.5	7.3	14.2	8.0	55 34 6.2	8.6	8
	4		4		3		3		3		2		2		
9	55 39 44.4	4.8	39.6	5.5	34.1	6.0	28.1	6.7	21.4	7.4	14.0	8.0	55 39 6.0	8.6	9
	3		3		4		3		2		3		3		
10	55 44 44.3	4.8	39.5	5.4	34.1	6.1	28.0	6.8	21.2	7.3	13.9	8.0	55 44 5.9	8.6	10
	3		3		3		3		3		2		2		
11	55 49 44.2	4.8	39.4	5.4	34.0	6.1	27.9	6.8	21.1	7.4	13.7	8.0	55 49 5.7	8.6	11
	4		4		3		3		3		3		2		
12	55 54 44.2	4.8	39.4	5.5	33.9	6.1	27.8	6.8	21.0	7.4	13.6	8.1	55 54 5.5	8.7	12
	3		3		3		3		3		2		3		
13	55 59 44.1	4.8	39.3	5.5	33.8	6.1	27.7	6.8	20.9	7.5	13.4	8.0	55 59 5.4	8.7	13
	4		3		3		3		2		3		2		
14	56 4 44.1	4.9	39.2	5.5	33.7	6.1	27.6	6.9	20.7	7.4	13.3	8.1	56 4 5.2	8.7	14
	3		4		3		3		3		2		2		
15	56 9 44.0	4.8	39.2	5.6	33.6	6.1	27.5	6.9	20.6	7.5	13.1	8.1	56 9 5.0	8.7	15
	4		3		3		2		3		3		2		
16	56 14 44.0	4.9	39.1	5.6	33.5	6.2	27.3	6.8	20.5	7.5	13.0	8.2	56 14 4.8	8.8	16
	3		3		4		3		3		2		3		
17	56 19 43.9	4.9	39.0	5.5	33.5	6.3	27.2	6.8	20.4	7.6	12.8	8.1	56 19 4.7	8.8	17
	4		3		3		3		2		3		2		
18	56 24 43.9	5.0	38.9	5.5	33.4	6.3	27.1	6.9	20.2	7.5	12.7	8.2	56 24 4.5	8.9	18
	3		4		2		3		3		2		2		
19	56 29 43.8	4.9	38.9	5.7	33.2	6.2	27.0	6.9	20.1	7.6	12.5	8.2	56 29 4.3	8.9	19
	3		3		3		3		2		2		2		
20	56 34 43.7	4.9	38.8	5.7	33.1	6.2	26.9	7.0	19.9	7.6	12.3	8.2	56 34 4.1	8.9	20
	3		3		3		2		3		2		1		
21	56 39 43.6	4.9	38.7	5.7	33.0	6.3	26.7	6.9	19.8	7.7	12.1	8.3	56 39 3.8	9.0	21
	3		3		3		3		2		2		2		
22	56 44 43.5	4.9	38.6	5.7	32.9	6.3	26.6	7.0	19.6	7.7	11.9	8.3	56 44 3.6	9.0	22
	3		2		2		2		2		2		2		
23	56 49 43.4	5.0	38.4	5.7	32.7	6.3	26.4	7.0	19.4	7.7	11.7	8.3	56 49 3.4	9.0	23
	3		3		3		2		2		2		2		
24	56 54 43.3	5.0	38.3	5.7	32.6	6.4	26.2	7.0	19.2	7.7	11.5	8.3	56 54 3.2	9.0	24
	3		2		2		3		2		2		1		
25	56 59 43.2	5.1	38.1	5.7	32.4	6.3	26.1	7.1	19.0	7.7	11.3	8.4	56 59 2.9	9.1	25
	2		3		2		2		2		1		1		
26	57 4 43.0	5.0	38.0	5.8	32.2	6.3	25.9	7.1	18.8	7.8	11.0	8.4	57 4 2.6	9.1	26

μ (unità 0″.1)

$\Delta\eta'=$	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c=0$	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η'	ξ = 0		ξ = 1		ξ = 2		ξ = 3		ξ = 4		ξ = 5		ξ = 6		η'
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	53 54 60.5	0.3	60.2	0.9	59.3	1.5	57.8	2.1	55.7	2.7	53.0	3.3	53 54 49.7	3.9	0
1	53 59 60.4	0.3	60.1	0.9	59.2	1.5	57.7	2.1	55.6	2.8	52.8	3.2	53 59 49.6	3.9	1
2	54 4 60.3	0.3	60.0	0.9	59.1	1.5	57.6	2.1	55.5	2.8	52.7	3.3	54 4 49.4	3.9	2
3	54 9 60.2	0.3	59.9	0.9	59.0	1.5	57.5	2.1	55.4	2.7	52.7	3.4	54 9 49.3	3.9	3
4	54 14 60.1	0.3	59.8	0.9	58.9	1.5	57.4	2.1	55.3	2.7	52.6	3.4	54 14 49.2	3.9	4
5	54 19 60.1	0.3	59.8	0.9	58.9	1.5	57.4	2.2	55.2	2.7	52.5	3.3	54 19 49.2	4.0	5
6	54 24 60.1	0.3	59.8	1.0	58.8	1.5	57.3	2.1	55.2	2.8	52.4	3.3	54 24 49.1	4.0	6
7	54 29 60.0	0.3	59.7	0.9	58.8	1.5	57.3	2.1	55.2	2.8	52.4	3.4	54 29 49.0	3.9	7
8	54 34 60.0	0.3	59.7	0.9	58.8	1.5	57.3	2.2	55.1	2.7	52.4	3.4	54 34 49.0	4.0	8
9	54 39 60.0	0.3	59.7	0.9	58.8	1.6	57.2	2.1	55.1	2.8	52.3	3.4	54 39 48.9	4.0	9
10	54 44 60.0	0.3	59.7	0.9	58.8	1.6	57.2	2.1	55.1	2.8	52.3	3.4	54 44 48.9	4.0	10
11	54 49 60.0	0.3	59.7	0.9	58.8	1.6	57.2	2.2	55.0	2.7	52.3	3.5	54 49 48.8	4.0	11
12	54 54 60.0	0.3	59.7	0.9	58.8	1.6	57.2	2.2	55.0	2.8	52.2	3.4	54 54 48.8	4.0	12
13	54 59 60.0	0.3	59.7	1.0	58.7	1.5	57.2	2.2	55.0	2.8	52.2	3.4	54 59 48.8	4.1	13
14	55 4 60.0	0.3	59.7	1.0	58.7	1.5	57.2	2.2	55.0	2.8	52.2	3.5	55 4 48.7	4.0	14
15	55 9 60.0	0.3	59.7	1.0	58.7	1.5	57.2	2.2	55.0	2.8	52.2	3.5	55 9 48.7	4.1	15
16	55 14 60.0	0.3	59.7	1.0	58.7	1.5	57.2	2.2	55.0	2.9	52.1	3.4	55 14 48.7	4.1	16
17	55 19 60.0	0.3	59.7	1.0	58.7	1.6	57.1	2.2	54.9	2.8	52.1	3.5	55 19 48.6	4.1	17
18	55 24 60.0	0.4	59.6	0.9	58.7	1.6	57.1	2.2	54.9	2.8	52.1	3.5	55 24 48.6	4.1	18
19	55 29 59.9	0.3	59.6	0.9	58.7	1.6	57.1	2.2	54.9	2.9	52.0	3.5	55 29 48.5	4.1	19
20	55 34 59.9	0.3	59.6	0.9	58.7	1.6	57.1	2.3	54.8	2.8	52.0	3.5	55 34 48.5	4.2	20
21	55 39 59.9	0.3	59.6	1.0	58.6	1.6	57.0	2.2	54.8	2.9	51.9	3.5	55 39 48.4	4.2	21
22	55 44 59.8	0.3	59.5	0.9	58.6	1.6	57.0	2.3	54.7	2.9	51.8	3.5	55 44 48.3	4.2	22
23	55 49 59.8	0.3	59.5	1.0	58.5	1.6	56.9	2.3	54.6	2.8	51.8	3.6	55 49 48.2	4.2	23
24	55 54 59.7	0.3	59.4	1.0	58.4	1.6	56.8	2.2	54.6	2.9	51.7	3.6	55 54 48.1	4.2	24
25	55 59 59.6	0.3	59.3	1.0	58.3	1.6	56.7	2.2	54.5	3.0	51.5	3.5	55 59 48.0	4.2	25
26	56 4 59.5	0.3	59.2	1.0	58.2	1.6	56.6	2.3	54.3	2.9	51.4	3.5	56 4 47.9	4.3	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

η	ξ = 7		ξ = 8		ξ = 9		ξ = 10		ξ = 11		ξ = 12		ξ = 13		η′
	° ′ ″	″	″	″	″	″	″	″	″	″	″	″	° ′ ″	″	
0	53 54 45.8	4.5	41.3	5.1	36.2	5.7	30.5	6.2	24.3	6.9	17.4	7.5	53 54 9.9	8.1	0
1	53 59 45.7	4.5	41.2	5.2	36.0	5.6	30.4	6.3	24.1	7.0	17.1	7.5	53 59 9.6	8.1	1
2	54 4 45.5	4.5	41.0	5.1	35.9	5.7	30.2	6.3	23.9	7.0	16.9	7.5	54 4 9.4	8.1	2
3	54 9 45.4	4.5	40.9	5.2	35.7	5.7	30.0	6.3	23.7	7.0	16.7	7.5	54 9 9.2	8.1	3
4	54 14 45.3	4.5	40.8	5.2	35.6	5.7	29.9	6.4	23.5	7.0	16.5	7.6	54 14 8.9	8.2	4
5	54 19 45.2	4.5	40.7	5.2	35.5	5.8	29.7	6.4	23.3	6.9	16.4	7.6	54 19 8.8	8.2	5
6	54 24 45.1	4.5	40.6	5.2	35.4	5.8	29.6	6.4	23.2	7.0	16.2	7.7	54 24 8.5	8.3	6
7	54 29 45.1	4.6	40.5	5.2	35.3	5.8	29.5	6.4	23.1	7.1	16.0	7.6	54 29 8.4	8.3	7
8	54 34 45.0	4.6	40.4	5.2	35.2	5.8	29.4	6.5	22.9	7.0	15.9	7.7	54 34 8.2	8.3	8
9	54 39 44.9	4.6	40.3	5.2	35.1	5.9	29.2	6.4	22.8	7.1	15.7	7.7	54 39 8.0	8.3	9
10	54 44 44.9	4.7	40.2	5.2	35.0	5.9	29.1	6.4	22.7	7.1	15.6	7.8	54 44 7.8	8.4	10
11	54 49 44.8	4.6	40.2	5.3	34.9	5.9	29.0	6.5	22.5	7.1	15.4	7.7	54 49 7.7	8.4	11
12	54 54 44.8	4.7	40.1	5.3	34.8	5.9	28.9	6.5	22.4	7.1	15.3	7.8	54 54 7.5	8.4	12
13	54 59 44.7	4.6	40.1	5.3	34.8	6.0	28.8	6.5	22.3	7.2	15.1	7.8	54 59 7.3	8.4	13
14	55 4 44.7	4.7	40.0	5.3	34.7	5.9	28.8	6.6	22.2	7.2	15.0	7.8	55 4 7.2	8.4	14
15	55 9 44.6	4.7	39.9	5.3	34.6	5.9	28.7	6.6	22.1	7.2	14.9	7.9	55 9 7.0	8.5	15
16	55 14 44.6	4.7	39.9	5.4	34.5	6.0	28.5	6.6	21.9	7.2	14.7	7.9	55 14 6.8	8.5	16
17	55 19 44.5	4.7	39.8	5.4	34.4	5.9	28.5	6.7	21.8	7.2	14.6	7.9	55 19 6.7	8.5	17
18	55 24 44.5	4.8	39.7	5.4	34.3	6.0	28.3	6.6	21.7	7.3	14.4	7.9	55 24 6.5	8.5	18
19	55 29 44.4	4.8	39.6	5.4	34.2	6.0	28.2	6.7	21.5	7.3	14.2	7.9	55 29 6.3	8.5	19
20	55 34 44.3	4.8	39.5	5.4	34.1	6.0	28.1	6.7	21.4	7.3	14.1	8.0	55 34 6.1	8.6	20
21	55 39 44.2	4.8	39.4	5.4	34.0	6.0	28.0	6.8	21.2	7.3	13.9	8.0	55 39 5.9	8.6	21
22	55 44 44.1	4.8	39.3	5.4	33.9	6.1	27.8	6.7	21.1	7.4	13.7	8.0	55 44 5.7	8.6	22
23	55 49 44.0	4.8	39.2	5.4	33.8	6.1	27.7	6.8	20.9	7.4	13.5	8.0	55 49 5.5	8.6	23
24	55 54 43.9	4.8	39.1	5.5	33.6	6.1	27.5	6.8	20.7	7.4	13.3	8.0	55 54 5.3	8.6	24
25	55 59 43.8	4.9	38.9	5.5	33.4	6.1	27.3	6.8	20.5	7.4	13.1	8.1	55 59 5.0	8.7	25
26	56 4 43.6	4.8	38.8	5.5	33.3	6.2	27.1	6.8	20.3	7.5	12.8	8.1	56 4 4.7	8.7	26

μ (unità 0″.1)

$\Delta\eta'$ =	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
c = 0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	1	1	1	1	1	1	1	1	1
2	0	1	1	1	1	1	2	2	2	2	2
3	0	1	1	1	2	2	2	3	3	3	3
4	0	1	1	2	2	2	3	3	4	4	4

PARTE TERZA

TAVOLE DI MOLTIPLICAZIONE SPECIALI

OSSIA

PARTI PROPORZIONALI

DELLE

DIFFERENZE TABULARI CHE OCCORRONO NEI PRONTUARII

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	^{s} 0.00^{0}	.03^{3}	.06^{6}	.09^{9}	.13^{2}	.16^{5}	.19^{8}	.23^{1}	.26^{4}	.29^{7}
01	33	36	39	42	46	49	52	56	59	62
02	66	69	72	75	79	82	85	89	92	95
03	99	*02	*05	*08	*12	*15	*18	*22	*25	*28
04	1.32	35	38	41	45	48	51	55	58	61
05	65	68	71	74	78	81	84	88	91	94
06	98	*01	*04	*07	*11	*14	*17	*21	*24	*27
07	2.31	34	37	40	44	47	50	54	57	60
08	64	67	70	73	77	80	83	87	90	93
09	97	*00	*03	*06	*10	*13	*16	*20	*23	*26
0.10	3.30	33	36	39	43	46	49	53	56	59
11	63	66	69	72	76	79	82	86	89	92
12	96	99	*02	*05	*09	*12	*15	*19	*22	*25
13	4.29	32	35	38	42	45	48	52	55	58
14	62	65	68	71	75	78	81	85	88	91
15	95	98	*01	*04	*08	*11	*14	*18	*21	*24
16	5.28	31	34	37	41	44	47	51	54	57
17	61	64	67	70	74	77	80	84	87	90
18	94	97	*00	*03	*07	*10	*13	*17	*20	*23
19	6.27	30	33	36	40	43	46	50	53	56
0.20	6.60	63	66	69	73	76	79	83	86	89
21	93	96	99	*02	*06	*09	*12	*16	*19	*22
22	7.26	29	32	35	39	42	45	49	52	55
23	59	62	65	68	72	75	78	82	85	88
24	92	95	98	*01	*05	*08	*11	*15	*18	*21
25	8.25	28	31	34	38	41	44	48	51	54
26	58	61	64	67	71	74	77	81	84	87
27	91	94	97	*00	*04	*07	*10	*14	*17	*20
28	9.24	27	30	33	37	40	43	47	50	53
29	57	60	63	66	70	73	76	80	83	86
0.30	9.90	93	96	99	*03	*06	*09	*13	*16	*19
31	10.23	26	29	32	36	39	42	46	49	52
32	56	59	62	65	69	72	75	79	82	85
33	89	92	95	98	*02	*05	*08	*12	*15	*18
34	11.22	25	28	31	35	38	41	45	48	51
35	55	58	61	64	68	71	74	78	81	84
36	88	91	94	97	*01	*04	*07	*11	*14	*17
37	12.21	24	27	30	34	37	40	44	47	50
38	54	57	60	63	67	70	73	77	80	83
39	87	90	93	96	*00	*03	*06	*10	*13	*16
0.40	13.20	23	26	29	33	36	39	43	46	49
41	53	56	59	62	66	69	72	76	79	82
42	86	89	92	95	99	*02	*05	*09	*12	*15
43	14.19	22	25	28	32	35	38	42	45	48
44	52	55	58	61	65	68	71	75	78	81
45	85	88	91	94	98	*01	*04	*08	*11	*14
46	15.18	21	24	27	31	34	37	41	44	47
47	51	54	57	60	64	67	70	74	77	80
48	84	87	90	93	97	*00	*03	*07	*10	*13
49	16.17	20	23	26	30	33	36	40	43	46
0.50	^{s} 16.50$_{0}$	.53$_{3}$	.56$_{6}$	.59$_{9}$	.63$_{2}$	.66$_{5}$	.69$_{8}$	.73$_{1}$	.76$_{4}$	.79$_{7}$
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	^{s} 16.50^{0}	.53^{3}	.56^{6}	.59^{9}	.63^{2}	.66^{5}	.69^{8}	.73^{1}	.76^{4}	.79^{7}
51	83	86	89	92	96	99	*02	*06	*09	*12
52	17.16	19	22	25	29	32	35	39	42	45
53	49	52	55	58	62	65	68	72	75	78
54	82	85	88	91	95	98	*01	*05	*08	*11
55	18.15	18	21	24	28	31	34	38	41	44
56	48	51	54	57	61	64	67	71	74	77
57	81	84	87	90	94	97	*00	*04	*07	*10
58	19.14	17	20	23	27	30	33	37	40	43
59	47	50	53	56	60	63	66	70	73	76
0.60	19.80	83	86	89	93	96	99	*03	*06	*09
61	20.13	16	19	22	26	29	32	36	39	42
62	46	49	52	55	59	62	65	69	72	75
63	79	82	85	88	92	95	98	*02	*05	*08
64	21.12	15	18	21	25	28	31	35	38	41
65	45	48	51	54	58	61	64	68	71	74
66	78	81	84	87	91	94	97	*01	*04	*07
67	22.11	14	17	20	24	27	30	34	37	40
68	44	47	50	53	57	60	63	67	70	73
69	77	80	83	86	90	93	96	*00	*03	*06
0.70	23.10	13	16	19	23	26	29	33	36	39
71	43	46	49	52	56	59	62	66	69	72
72	76	79	82	85	89	92	95	99	*02	*05
73	24.09	12	15	18	22	25	28	32	35	38
74	42	45	48	51	55	58	61	65	68	71
75	75	78	81	84	88	91	94	98	*01	*04
76	25.08	11	14	17	21	24	27	31	34	37
77	41	44	47	50	54	57	60	64	67	70
78	74	77	80	83	87	90	93	97	*00	*03
79	26.07	10	13	16	20	23	26	30	33	36
0.80	26.40	43	46	49	53	56	59	63	66	69
81	73	76	79	82	86	89	92	96	99	*02
82	27.06	09	12	15	19	22	25	29	32	35
83	39	42	45	48	52	55	58	62	65	68
84	72	75	78	81	85	88	91	95	98	*01
85	28.05	08	11	14	18	21	24	28	31	34
86	38	41	44	47	51	54	57	61	64	67
87	71	74	77	80	84	87	90	94	97	*00
88	29.04	07	10	13	17	20	23	27	30	33
89	37	40	43	46	50	53	56	60	63	66
0.90	29.70	73	76	79	83	86	89	93	96	99
91	30.03	06	09	12	16	19	22	26	29	32
92	36	39	42	45	49	52	55	59	62	65
93	69	72	75	78	82	85	88	92	95	98
94	31.02	05	08	11	15	18	21	25	28	31
95	35	38	41	44	48	51	54	58	61	64
96	68	71	74	77	81	84	87	91	94	97
97	32.01	04	07	10	14	17	20	24	27	30
98	34	37	40	43	47	50	53	57	60	63
99	67	70	73	76	80	83	86	90	93	96
1.00	^{s} 33.00$_{0}$	.03$_{3}$	.06$_{6}$	.09$_{9}$	.13$_{2}$	.16$_{5}$	.19$_{8}$	.23$_{1}$	.26$_{4}$	.29$_{7}$
Δξ	0	1	2	3	4	5	6	7	8	9

Tav. 2. | **P.P. di 34^s**

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	4	8	2	6	0	4	8	2	6
0.00	0.00	03	06	10	13	17	20	23	27	30
01	34	37	40	44	47	51	54	57	61	64
02	68	71	74	78	81	85	88	91	95	98
03	1.02	05	08	12	15	19	22	25	29	32
04	36	39	42	46	49	53	56	59	63	66
05	70	73	76	80	83	87	90	93	97	*00
06	2.04	07	10	14	17	21	24	27	31	34
07	38	41	44	48	51	55	58	61	65	68
08	72	75	78	82	85	89	92	95	99	*02
09	3.06	09	12	16	19	23	26	29	33	36
0.10	3.40	43	46	50	53	57	60	63	67	70
11	74	77	80	84	87	91	94	97	*01	*04
12	4.08	11	14	18	21	25	28	31	35	38
13	42	45	48	52	55	59	62	65	69	72
14	76	79	82	86	89	93	96	99	*03	*06
15	5.10	13	16	20	23	27	30	33	37	40
16	44	47	50	54	57	61	64	67	71	74
17	78	81	84	88	91	95	98	*01	*05	*08
18	6.12	15	18	22	25	29	32	35	39	42
19	46	49	52	56	59	63	66	69	73	76
0.20	6.80	83	86	90	93	97	*00	*03	*07	*10
21	7.14	17	20	24	27	31	34	37	41	44
22	48	51	54	58	61	65	68	71	75	78
23	82	85	88	92	95	99	*02	*05	*09	*12
24	8.16	19	22	26	29	33	36	39	43	46
25	50	53	56	60	63	67	70	73	77	80
26	84	87	90	94	97	*01	*04	*07	*11	*14
27	9.18	21	24	28	31	35	38	41	45	48
28	52	55	58	62	65	69	72	75	79	82
29	86	89	92	96	99	*03	*06	*09	*13	*16
0.30	10.20	23	26	30	33	37	40	43	47	50
31	54	57	60	64	67	71	74	77	81	84
32	88	91	94	98	*01	*05	*08	*11	*15	*18
33	11.22	25	28	32	35	39	42	45	49	52
34	56	59	62	66	69	73	76	79	83	86
35	90	93	96	*00	*03	*07	*10	*13	*17	*20
36	12.24	27	30	34	37	41	44	47	51	54
37	58	61	64	68	71	75	78	81	85	88
38	92	95	98	*02	*05	*09	*12	*15	*19	*22
39	13.26	29	32	36	39	43	46	49	53	56
0.40	13.60	63	66	70	73	77	80	83	87	90
41	94	97	*00	*04	*07	*11	*14	*17	*21	*24
42	14.28	31	34	38	41	45	48	51	55	58
43	62	65	68	72	75	79	82	85	89	92
44	96	99	*02	*06	*09	*13	*16	*19	*23	*26
45	15.30	33	36	40	43	47	50	53	57	60
46	64	67	70	74	77	81	84	87	91	94
47	98	*01	*04	*08	*11	*15	*18	*21	*25	*28
48	16.32	35	38	42	45	49	52	55	59	62
49	66	69	72	76	79	83	86	89	93	96
0.50	s 17.00	03	06	10	13	17	20	23	27	30
	0	4	8	2	6	0	4	8	2	6
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	4	8	2	6	0	4	8	2	6
0.50	17.00	03	06	10	13	17	20	23	27	30
51	34	37	40	44	47	51	54	57	61	64
52	68	71	74	78	81	85	88	91	95	98
53	18.02	05	08	12	15	19	22	25	29	32
54	36	39	42	46	49	53	56	59	63	66
55	70	73	76	80	83	87	90	93	97	*00
56	19.04	07	10	14	17	21	24	27	31	34
57	38	41	44	48	51	55	58	61	65	68
58	72	75	78	82	85	89	92	95	99	*02
59	20.06	09	12	16	19	23	26	29	33	36
0.60	20.40	43	46	50	53	57	60	63	67	70
61	74	77	80	84	87	91	94	97	*01	*04
62	21.08	11	14	18	21	25	28	31	35	38
63	42	45	48	52	55	59	62	65	69	72
64	76	79	82	86	89	93	96	99	*03	*06
65	22.10	13	16	20	23	27	30	33	37	40
66	44	47	50	54	57	61	64	67	71	74
67	78	81	84	88	91	95	98	*01	*05	*08
68	23.12	15	18	22	25	29	32	35	39	42
69	46	49	52	56	59	63	66	69	73	76
0.70	23.80	83	86	90	93	97	*00	*03	*07	*10
71	24.14	17	20	24	27	31	34	37	41	44
72	48	51	54	58	61	65	68	71	75	78
73	82	85	88	92	95	99	*02	*05	*09	*12
74	25.16	19	22	26	29	33	36	39	43	46
75	50	53	56	60	63	67	70	73	77	80
76	84	87	90	94	97	*01	*04	*07	*11	*14
77	26.18	21	24	28	31	35	38	41	45	48
78	52	55	58	62	65	69	72	75	79	82
79	86	89	92	96	99	*03	*06	*09	*13	*16
0.80	27.20	23	26	30	33	37	40	43	47	50
81	54	57	60	64	67	71	74	77	81	84
82	88	91	94	98	*01	*05	*08	*11	*15	*18
83	28.22	25	28	32	35	39	42	45	49	52
84	56	59	62	66	69	73	76	79	83	86
85	90	93	96	*00	*03	*07	*10	*13	*17	*20
86	29.24	27	30	34	37	41	44	47	51	54
87	58	61	64	68	71	75	78	81	85	88
88	92	95	98	*02	*05	*09	*12	*15	*19	*22
89	30.26	29	32	36	39	43	46	49	53	56
0.90	30.60	63	66	70	73	77	80	83	87	90
91	94	97	*00	*04	*07	*11	*14	*17	*21	*24
92	31.28	31	34	38	41	45	48	51	55	58
93	62	65	68	72	75	79	82	85	89	92
94	96	99	*02	*06	*09	*13	*16	*19	*23	*26
95	32.30	33	36	40	43	47	50	53	57	60
96	64	67	70	74	77	81	84	87	91	94
97	98	*01	*04	*08	*11	*15	*18	*21	*25	*28
98	33.32	35	38	42	45	49	52	55	59	62
99	66	69	72	76	79	83	86	89	93	96
1.00	s 34.00	03	06	10	13	17	20	23	27	30
	0	4	8	2	6	0	4	8	2	6
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 35^s — Tav. 3.

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	0.00	03	07	10	14	17	21	24	28	31
01	35	38	42	45	49	52	56	59	63	66
02	70	73	77	80	84	87	91	94	98	*01
03	1.05	08	12	15	19	22	26	29	33	36
04	40	43	47	50	54	57	61	64	68	71
05	75	78	82	85	89	92	96	99	*03	*06
06	2.10	13	17	20	24	27	31	34	38	41
07	45	48	52	55	59	62	66	69	73	76
08	80	83	87	90	94	97	*01	*04	*08	*11
09	3.15	18	22	25	29	32	36	39	43	46
0.10	3.50	53	57	60	64	67	71	74	78	81
11	85	88	92	95	99	*02	*06	*09	*13	*16
12	4.20	23	27	30	34	37	41	44	48	51
13	55	58	62	65	69	72	76	79	83	86
14	90	93	97	*00	*04	*07	*11	*14	*18	*21
15	5.25	28	32	35	39	42	46	49	53	56
16	60	63	67	70	74	77	81	84	88	91
17	95	98	*02	*05	*09	*12	*16	*19	*23	*26
18	6.30	33	37	40	44	47	51	54	58	61
19	65	68	72	75	79	82	86	89	93	96
0.20	7.00	03	07	10	14	17	21	24	28	31
21	35	38	42	45	49	52	56	59	63	66
22	70	73	77	80	84	87	91	94	98	*01
23	8.05	08	12	15	19	22	26	29	33	36
24	40	43	47	50	54	57	61	64	68	71
25	75	78	82	85	89	92	96	99	*03	*06
26	9.10	13	17	20	24	27	31	34	38	41
27	45	48	52	55	59	62	66	69	73	76
28	80	83	87	90	94	97	*01	*04	*08	*11
29	10.15	18	22	25	29	32	36	39	43	46
0.30	10.50	53	57	60	64	67	71	74	78	81
31	85	88	92	95	99	*02	*06	*09	*13	*16
32	11.20	23	27	30	34	37	41	44	48	51
33	55	58	62	65	69	72	76	79	83	86
34	90	93	97	*00	*04	*07	*11	*14	*18	*21
35	12.25	28	32	35	39	42	46	49	53	56
36	60	63	67	70	74	77	81	84	88	91
37	95	98	*02	*05	*09	*12	*16	*19	*23	*26
38	13.30	33	37	40	44	47	51	54	58	61
39	65	68	72	75	79	82	86	89	93	96
0.40	14.00	03	07	10	14	17	21	24	28	31
41	35	38	42	45	49	52	56	59	63	66
42	70	73	77	80	84	87	91	94	98	*01
43	15.05	08	12	15	19	22	26	29	33	36
44	40	43	47	50	54	57	61	64	68	71
45	75	78	82	85	89	92	96	99	*03	*06
46	16.10	13	17	20	24	27	31	34	38	41
47	45	48	52	55	59	62	66	69	73	76
48	80	83	87	90	94	97	*01	*04	*08	*11
49	17.15	18	22	25	29	32	36	39	43	46
0.50	17.50	53	57	60	64	67	71	74	78	81
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	17.50	53	57	60	64	67	71	74	78	81
51	85	88	92	95	99	*02	*06	*09	*13	*16
52	18.20	23	27	30	34	37	41	44	48	51
53	55	58	62	65	69	72	76	79	83	86
54	90	93	97	*00	*04	*07	*11	*14	*18	*21
55	19.25	28	32	35	39	42	46	49	53	56
56	60	63	67	70	74	77	81	84	88	91
57	95	98	*02	*05	*09	*12	*16	*19	*23	*26
58	20.30	33	37	40	44	47	51	54	58	61
59	65	68	72	75	79	82	86	89	93	96
0.60	21.00	03	07	10	14	17	21	24	28	31
61	35	38	42	45	49	52	56	59	63	66
62	70	73	77	80	84	87	91	94	98	*01
63	22.05	08	12	15	19	22	26	29	33	36
64	40	43	47	50	54	57	61	64	68	71
65	75	78	82	85	89	92	96	99	*03	*06
66	23.10	13	17	20	24	27	31	34	38	41
67	45	48	52	55	59	62	66	69	73	76
68	80	83	87	90	94	97	*01	*04	*08	*11
69	24.15	18	22	25	29	32	36	39	43	46
0.70	24.50	53	57	60	64	67	71	74	78	81
71	85	88	92	95	99	*02	*06	*09	*13	*16
72	25.20	23	27	30	34	37	41	44	48	51
73	55	58	62	65	69	72	76	79	83	86
74	90	93	97	*00	*04	*07	*11	*14	*18	*21
75	26.25	28	32	35	39	42	46	49	53	56
76	60	63	67	70	74	77	81	84	88	91
77	95	98	*02	*05	*09	*12	*16	*19	*23	*26
78	27.30	33	37	40	44	47	51	54	58	61
79	65	68	72	75	79	82	86	89	93	96
0.80	28.00	03	07	10	14	17	21	24	28	31
81	35	38	42	45	49	52	56	59	63	66
82	70	73	77	80	84	87	91	94	98	*01
83	29.05	08	12	15	19	22	26	29	33	36
84	40	43	47	50	54	57	61	64	68	71
85	75	78	82	85	89	92	96	99	*03	*06
86	30.10	13	17	20	24	27	31	34	38	41
87	45	48	52	55	59	62	66	69	73	76
88	80	83	87	90	94	97	*01	*04	*08	*11
89	31.15	18	22	25	29	32	36	39	43	46
0.90	31.50	53	57	60	64	67	71	74	78	81
91	85	88	92	95	99	*02	*06	*09	*13	*16
92	32.20	23	27	30	34	37	41	44	48	51
93	55	58	62	65	69	72	76	79	83	86
94	90	93	97	*00	*04	*07	*11	*14	*18	*21
95	33.25	28	32	35	39	42	46	49	53	56
96	60	63	67	70	74	77	81	84	88	91
97	95	98	*02	*05	*09	*12	*16	*19	*23	*26
98	34.30	33	37	40	44	47	51	54	58	61
99	65	68	72	75	79	82	86	89	93	96
1.00	35.00	03	07	10	14	17	21	24	28	31
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 36^s

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	s 0.00 (0)	03 (6)	07 (2)	10 (8)	14 (4)	18 (0)	21 (6)	25 (2)	28 (8)	32 (4)
01	36	39	43	46	50	54	57	61	64	68
02	72	75	79	82	86	90	93	97	*00	*04
03	1.08	11	15	18	22	26	29	33	36	40
04	44	47	51	54	58	62	65	69	72	76
05	80	83	87	90	94	98	*01	*05	*08	*12
06	2.16	19	23	26	30	34	37	41	44	48
07	52	55	59	62	66	70	73	77	80	84
08	88	91	95	98	*02	*06	*09	*13	*16	*20
09	3.24	27	31	34	38	42	45	49	52	56
0.10	3.60	63	67	70	74	78	81	85	88	92
11	96	99	*03	*06	*10	*14	*17	*21	*24	*28
12	4.32	35	39	42	46	50	53	57	60	64
13	68	71	75	78	82	86	89	93	96	*00
14	5.04	07	11	14	18	22	25	29	32	36
15	40	43	47	50	54	58	61	65	68	72
16	76	79	83	86	90	94	97	*01	*04	*08
17	6.12	15	19	22	26	30	33	37	40	44
18	48	51	55	58	62	66	69	73	76	80
19	84	87	91	94	98	*02	*05	*09	*12	*16
0.20	7.20	23	27	30	34	38	41	45	48	52
21	56	59	63	66	70	74	77	81	84	88
22	92	95	99	*02	*06	*10	*13	*17	*20	*24
23	8.28	31	35	38	42	46	49	53	56	60
24	64	67	71	74	78	82	85	89	92	96
25	9.00	03	07	10	14	18	21	25	28	32
26	36	39	43	46	50	54	57	61	64	68
27	72	75	79	82	86	90	93	97	*00	*04
28	10.08	11	15	18	22	26	29	33	36	40
29	44	47	51	54	58	62	65	69	72	76
0.30	10.80	83	87	90	94	98	*01	*05	*08	*12
31	11.16	19	23	26	30	34	37	41	44	48
32	52	55	59	62	66	70	73	77	80	84
33	88	91	95	98	*02	*06	*09	*13	*16	*20
34	12.24	27	31	34	38	42	45	49	52	56
35	60	63	67	70	74	78	81	85	88	92
36	96	99	*03	*06	*10	*14	*17	*21	*24	*28
37	13.32	35	39	42	46	50	53	57	60	64
38	68	71	75	78	82	86	89	93	96	*00
39	14.04	07	11	14	18	22	25	29	32	36
0.40	14.40	43	47	50	54	58	61	65	68	72
41	76	79	83	86	90	94	97	*01	*04	*08
42	15.12	15	19	22	26	30	33	37	40	44
43	48	51	55	58	62	66	69	73	76	80
44	84	87	91	94	98	*02	*05	*09	*12	*16
45	16.20	23	27	30	34	38	41	45	48	52
46	56	59	63	66	70	74	77	81	84	88
47	92	95	99	*02	*06	*10	*13	*17	*20	*24
48	17.28	31	35	38	42	46	49	53	56	60
49	64	67	71	74	78	82	85	89	92	96
0.50	s 18.00 (0)	03 (6)	07 (2)	10 (8)	14 (4)	18 (0)	21 (6)	25 (2)	28 (8)	32 (4)
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	s 18.00 (0)	03 (6)	07 (2)	10 (8)	14 (4)	18 (0)	21 (6)	25 (2)	28 (8)	32 (4)
51	36	39	43	46	50	54	57	61	64	68
52	72	75	79	82	86	90	93	97	*00	*04
53	19.08	11	15	18	22	26	29	33	36	40
54	44	47	51	54	58	62	65	69	72	76
55	80	83	87	90	94	98	*01	*05	*08	*12
56	20.16	19	23	26	30	34	37	41	44	48
57	52	55	59	62	66	70	73	77	80	84
58	88	91	95	98	*02	*06	*09	*13	*16	*20
59	21.24	27	31	34	38	42	45	49	52	56
0.60	21.60	63	67	70	74	78	81	85	88	92
61	96	99	*03	*06	*10	*14	*17	*21	*24	*28
62	22.32	35	39	42	46	50	53	57	60	64
63	68	71	75	78	82	86	89	93	96	*00
64	23.04	07	11	14	18	22	25	29	32	36
65	40	43	47	50	54	58	61	65	68	72
66	76	79	83	86	90	94	97	*01	*04	*08
67	24.12	15	19	22	26	30	33	37	40	44
68	48	51	55	58	62	66	69	73	76	80
69	84	87	91	94	98	*02	*05	*09	*12	*16
0.70	25.20	23	27	30	34	38	41	45	48	52
71	56	59	63	66	70	74	77	81	84	88
72	92	95	99	*02	*06	*10	*13	*17	*20	*24
73	26.28	31	35	38	42	46	49	53	56	60
74	64	67	71	74	78	82	85	89	92	96
75	27.00	03	07	10	14	18	21	25	28	32
76	36	39	43	46	50	54	57	61	64	68
77	72	75	79	82	86	90	93	97	*00	*04
78	28.08	11	15	18	22	26	29	33	36	40
79	44	47	51	54	58	62	65	69	72	76
0.80	28.80	83	87	90	94	98	*01	*05	*08	*12
81	29.16	19	23	26	30	34	37	41	44	48
82	52	55	59	62	66	70	73	77	80	84
83	88	91	95	98	*02	*06	*09	*13	*16	*20
84	30.24	27	31	34	38	42	45	49	52	56
85	60	63	67	70	74	78	81	85	88	92
86	96	99	*03	*06	*10	*14	*17	*21	*24	*28
87	31.32	35	39	42	46	50	53	57	60	64
88	68	71	75	78	82	86	89	93	96	*00
89	32.04	07	11	14	18	22	25	29	32	36
0.90	32.40	43	47	50	54	58	61	65	68	72
91	76	79	83	86	90	94	97	*01	*04	*08
92	33.12	15	19	22	26	30	33	37	40	44
93	48	51	55	58	62	66	69	73	76	80
94	84	87	91	94	98	*02	*05	*09	*12	*16
95	34.20	23	27	30	34	38	41	45	48	52
96	56	59	63	66	70	74	77	81	84	88
97	92	95	99	*02	*06	*10	*13	*17	*20	*24
98	35.28	31	35	38	42	46	49	53	56	60
99	64	67	71	74	78	82	85	89	92	96
1.00	s 36.00 (0)	03 (6)	07 (2)	10 (8)	14 (4)	18 (0)	21 (6)	25 (2)	28 (8)	32 (4)
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	7	4	1	8	5	2	9	6	3
0.00	0.00	03	07	11	14	18	22	25	29	33
01	37	40	44	48	51	55	59	62	66	70
02	74	77	81	85	88	92	96	99	*03	*07
03	1.11	14	18	22	25	29	33	36	40	44
04	48	51	55	59	62	66	70	73	77	81
05	85	88	92	96	99	*03	*07	*10	*14	*18
06	2.22	25	29	33	36	40	44	47	51	55
07	59	62	66	70	73	77	81	84	88	92
08	96	99	*03	07	*10	*14	*18	*21	*25	*29
09	3.33	36	40	44	47	51	55	58	62	66
0.10	3.70	73	77	81	84	88	92	95	99	*03
11	4.07	10	14	18	21	25	29	32	36	40
12	44	47	51	55	58	62	66	69	73	77
13	81	84	88	92	95	99	*03	*06	*10	*14
14	5.18	21	25	29	32	36	40	43	47	51
15	55	58	62	66	69	73	77	80	84	88
16	92	95	99	*03	*06	*10	*14	*17	*21	*25
17	6.29	32	36	40	43	47	51	54	58	62
18	66	69	73	77	80	84	88	91	95	99
19	7.03	06	10	14	17	21	25	28	32	36
0.20	7.40	43	47	51	54	58	62	65	69	73
21	77	80	84	88	91	95	99	*02	*06	*10
22	8.14	17	21	25	28	32	36	39	43	47
23	51	54	58	62	65	69	73	76	80	84
24	88	91	95	99	*02	*06	*10	*13	*17	*21
25	9.25	28	32	36	39	43	47	50	54	58
26	62	65	69	73	76	80	84	87	91	95
27	99	*02	*06	*10	*13	*17	*21	*24	*28	*32
28	10.36	39	43	47	50	54	58	61	65	69
29	73	76	80	84	87	91	95	98	*02	*06
0.30	11.10	13	17	21	24	28	32	35	39	43
31	47	50	54	58	61	65	69	72	76	80
32	84	87	91	95	98	*02	*06	*09	*13	*17
33	12.21	24	28	32	35	39	43	46	50	54
34	58	61	65	69	72	76	80	83	87	91
35	95	98	*02	*06	*09	*13	*17	*20	*24	*28
36	13.32	35	39	43	46	50	54	57	61	65
37	69	72	76	80	83	87	91	94	98	*02
38	14.06	09	13	17	20	24	28	31	35	39
39	43	46	50	54	57	61	65	68	72	76
0.40	14.80	83	87	91	94	98	*02	*05	*09	*13
41	15.17	20	24	28	31	35	39	42	46	50
42	54	57	61	65	68	72	76	79	83	87
43	91	94	98	*02	*05	*09	*13	*16	*20	*24
44	16.28	31	35	39	42	46	50	53	57	61
45	65	68	72	76	79	83	87	90	94	98
46	17.02	05	09	13	16	20	24	27	31	35
47	39	42	46	50	53	57	61	64	68	72
48	76	79	83	87	90	94	98	*01	*05	*09
49	18.13	16	20	24	27	31	35	38	42	46
0.50	s 18.50	53	57	61	64	68	72	75	79	83
	0		1	1	8	5	2	[illegible]	6	3
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	7	4	1	8	5	2	9	6	3
0.50	18.50	53	57	61	64	68	72	75	79	83
51	87	90	94	98	*01	*05	*09	*12	*16	*20
52	19.24	27	31	35	38	42	46	49	53	57
53	61	64	68	72	75	79	83	86	90	94
54	98	*01	*05	*09	*12	*16	*20	*23	*27	*31
55	20.35	38	42	46	49	53	57	60	64	68
56	72	75	79	83	86	90	94	97	*01	*05
57	21.09	12	16	20	23	27	31	34	38	42
58	46	49	53	57	60	64	68	71	75	79
59	83	86	90	94	97	*01	*05	*08	*12	*16
0.60	22.20	23	27	31	34	38	42	45	49	53
61	57	60	64	68	71	75	79	82	86	90
62	94	97	*01	*05	*08	*12	*16	*19	*23	*27
63	23.31	34	38	42	45	49	53	56	60	64
64	68	71	75	79	82	86	90	93	97	*01
65	24.05	08	12	16	19	23	27	30	34	38
66	42	45	49	53	56	60	64	67	71	75
67	79	82	86	90	93	97	*01	*04	*08	*12
68	25.16	19	23	27	30	34	38	41	45	49
69	53	56	60	64	67	71	75	78	82	86
0.70	25.90	93	97	*01	*04	*08	*12	*15	*19	*23
71	26.27	30	34	38	41	45	49	52	56	60
72	64	67	71	75	78	82	86	89	93	97
73	27.01	04	08	12	15	19	23	26	30	34
74	38	41	45	49	52	56	60	63	67	71
75	75	78	82	86	89	93	97	*00	*04	*08
76	28.12	15	19	23	26	30	34	37	41	45
77	49	52	56	60	63	67	71	74	78	82
78	86	89	93	97	*00	*04	*08	*11	*15	*19
79	29.23	26	30	34	37	41	45	48	52	56
0.80	29.60	63	67	71	74	78	82	85	89	93
81	97	*00	*04	*08	*11	*15	*19	*22	*26	*30
82	30.34	37	41	45	48	52	56	59	63	67
83	71	74	78	82	85	89	93	96	*00	*04
84	31.08	11	15	19	22	26	30	33	37	41
85	45	48	52	56	59	63	67	70	74	78
86	82	85	89	93	96	*00	*04	*07	*11	*15
87	32.19	22	26	30	33	37	41	44	48	52
88	56	59	63	67	70	74	78	81	85	89
89	93	96	*00	*04	*07	*11	*15	*18	*22	*26
0.90	30.30	33	37	41	44	48	52	55	59	63
91	67	70	74	78	81	85	89	92	96	*00
92	34.04	07	11	15	18	22	26	29	33	37
93	41	44	48	52	55	59	63	66	70	74
94	78	81	85	89	92	96	*00	*03	*07	*11
95	35.15	18	22	26	29	33	37	40	44	48
96	52	55	59	63	66	70	74	77	81	85
97	89	92	96	*00	*03	*07	*11	*14	*18	*22
98	36.26	29	33	37	40	44	48	51	55	59
99	63	66	70	74	77	81	85	88	92	96
1.00	s 37.00	03	07	11	14	18	22	25	29	33
	0	7	4	1		5	2	9	6	3
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 38ˢ

Δξ	0	1	2	3	4	5	6	7	8	9
	0	8	6	4	2	0	8	6	4	2
0.00	0.00	03	07	11	15	19	22	26	30	34
01	38	41	45	49	53	57	60	64	68	72
02	76	79	83	87	91	95	98	*02	*06	*10
03	1.14	17	21	25	29	33	36	40	44	48
04	52	55	59	63	67	71	74	78	82	86
05	90	93	97	*01	*05	*09	*12	*16	*20	*24
06	2.28	31	35	39	43	47	50	54	58	62
07	66	69	73	77	81	85	88	92	96	*00
08	3.04	07	11	15	19	23	26	30	34	38
09	42	45	49	53	57	61	64	68	72	76
0.10	3.80	83	87	91	95	99	*02	*06	*10	*14
11	4.18	21	25	29	33	37	40	44	48	52
12	56	59	63	67	71	75	78	82	86	90
13	94	97	*01	*05	*09	*13	*16	*20	*24	*28
14	5.32	35	39	43	47	51	54	58	62	66
15	70	73	77	81	85	89	92	96	*00	*04
16	6.08	11	15	19	23	27	30	34	38	42
17	46	49	53	57	61	65	68	72	76	80
18	84	87	91	95	99	*03	*06	*10	14	*18
19	7.22	25	29	33	37	41	44	48	52	56
0.20	7.60	63	67	71	75	79	82	86	90	94
21	98	*01	*05	*09	*13	*17	*20	*24	*28	*32
22	8.36	39	43	47	51	55	58	62	66	70
23	74	77	81	85	89	93	96	*00	*04	*08
24	9.12	15	19	23	27	31	34	38	42	46
25	50	53	57	61	65	69	72	76	80	84
26	88	91	95	99	*03	*07	*10	*14	*18	*22
27	10.26	29	33	37	41	45	48	52	56	60
28	64	67	71	75	79	83	86	90	94	98
29	11.02	05	09	13	17	21	24	28	32	36
0.30	11.40	43	47	51	55	59	62	66	70	74
31	78	81	85	89	93	97	*00	*04	*08	*12
32	12.16	19	23	27	31	35	38	42	46	50
33	54	57	61	65	69	73	76	80	84	88
34	92	95	99	*03	*07	*11	*14	*18	*22	*26
35	13.30	33	37	41	45	49	52	56	60	64
36	68	71	75	79	83	87	90	94	98	*02
37	14.06	09	13	17	21	25	28	32	36	40
38	44	47	51	55	59	63	66	70	74	78
39	82	85	89	93	97	*01	*04	*08	*12	*16
0.40	15.20	23	27	31	35	39	42	46	50	54
41	58	61	65	69	73	77	80	84	88	92
42	96	99	*03	*07	*11	*15	*18	*22	*26	*30
43	16.34	37	41	45	49	53	56	60	64	68
44	72	75	79	83	87	91	94	98	*02	*06
45	17.10	13	17	21	25	29	32	36	40	44
46	48	51	55	59	63	67	70	74	78	82
47	86	89	93	97	*01	*05	*08	*12	*16	*20
48	18.24	27	31	35	39	43	46	50	54	58
49	62	65	69	73	77	81	84	88	92	96
0.50	s 19.00	03	07	11	15	19	22	26	30	34
	0	8	6	4	2	0	8	6	4	2
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	0	8	6	4	2	0	8	6	4	2
0.50	19.00	03	07	11	15	19	22	26	30	34
51	38	41	45	49	53	57	60	64	68	72
52	76	79	83	87	91	95	98	*02	*06	*10
53	20.14	17	21	25	29	33	36	40	44	48
54	52	55	59	63	67	71	74	78	82	86
55	90	93	97	*01	*05	*09	*12	*16	*20	*24
56	21.28	31	35	39	43	47	50	54	58	62
57	66	69	73	77	81	85	88	92	96	*00
58	22.04	07	11	15	19	23	26	30	34	38
59	42	45	49	53	57	61	64	68	72	76
0.60	22.80	83	87	91	95	99	*02	*06	*10	*14
61	23.18	21	25	29	33	37	40	44	48	52
62	56	59	63	67	71	75	78	82	86	90
63	94	97	*01	*05	*09	*13	*16	*20	*24	*28
64	24.32	35	39	43	47	51	54	58	62	66
65	70	73	77	81	85	89	92	96	*00	*04
66	25.08	11	15	19	23	27	30	34	38	42
67	46	49	53	57	61	65	68	72	76	80
68	84	87	91	95	99	*03	*06	*10	*14	*18
69	26.22	25	29	33	37	41	44	48	52	56
0.70	26.60	63	67	71	75	79	82	86	90	94
71	98	*01	*05	*09	*13	*17	*20	*24	*28	*32
72	27.36	39	43	47	51	55	58	62	66	70
73	74	77	81	85	89	93	96	*00	*04	*08
74	28.12	15	19	23	27	31	34	38	42	46
75	50	53	57	61	65	69	72	76	80	84
76	88	91	95	99	*03	*07	*10	*14	*18	*22
77	29.26	29	33	37	41	45	48	52	56	60
78	64	67	71	75	79	83	86	90	94	98
79	30.02	05	09	13	17	21	24	28	32	36
0.80	30.40	43	47	51	55	59	62	66	70	74
81	78	81	85	89	93	97	*00	*04	*08	*12
82	31.16	19	23	27	31	35	38	42	46	50
83	54	57	61	65	69	73	76	80	84	88
84	92	95	99	*03	*07	*11	*14	*18	*22	*26
85	32.30	33	37	41	45	49	52	56	60	64
86	68	71	75	79	83	87	90	94	98	*02
87	33.06	09	13	17	21	25	28	32	36	40
88	44	47	51	55	59	63	66	70	74	78
89	82	85	89	93	97	*01	*04	*08	*12	*16
0.90	34.20	23	27	31	35	39	42	46	50	54
91	58	61	65	69	73	77	80	84	88	92
92	96	99	*03	*07	*11	*15	*18	*22	*26	*30
93	35.34	37	41	45	49	53	56	60	64	68
94	72	75	79	83	87	91	94	98	*02	*06
95	36.10	13	17	21	25	29	32	36	40	44
96	48	51	55	59	63	67	70	74	78	82
97	86	89	93	97	*01	*05	*08	*12	*16	*20
98	37.24	27	31	35	39	43	46	50	54	58
99	62	65	69	73	77	81	84	88	92	96
1.00	s 38.00	03	07	11	15	19	22	26	30	34
	0	8	6	4	2	0	8	6	4	2
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	9	8	7	6	5	4	3	2	1
0.00	0.00	03	07	11	15	19	23	27	31	35
01	39	42	46	50	54	58	62	66	70	74
02	78	81	85	89	93	97	*01	*05	*09	*13
03	1.17	20	24	28	32	36	40	44	48	52
04	56	59	63	67	71	75	79	83	87	91
05	95	98	*02	*06	*10	*14	*18	*22	*26	*30
06	2.34	37	41	45	49	53	57	61	65	69
07	73	76	80	84	88	92	96	*00	*04	*08
08	3.12	15	19	23	27	31	35	39	43	47
09	51	54	58	62	66	70	74	78	82	86
0.10	3.90	93	97	*01	*05	*09	*13	*17	*21	*25
11	4.29	32	36	40	44	48	52	56	60	64
12	68	71	75	79	83	87	91	95	99	*03
13	5.07	10	14	18	22	26	30	34	38	42
14	46	49	53	57	61	65	69	73	77	81
15	85	88	92	96	*00	*04	*08	*12	*16	*20
16	6.24	27	31	35	39	43	47	51	55	59
17	63	66	70	74	78	82	86	90	94	98
18	7.02	05	09	13	17	21	25	29	33	37
19	41	44	48	52	56	60	64	68	72	76
0.20	7.80	83	87	91	95	99	*03	*07	*11	*15
21	8.19	22	26	30	34	38	42	46	50	54
22	58	61	65	69	73	77	81	85	89	93
23	97	*00	*04	*08	*12	*16	*20	*24	*28	*32
24	9.36	39	43	47	51	55	59	63	67	71
25	75	78	82	86	90	94	98	*02	*06	*10
26	10.14	17	21	25	29	33	37	41	45	49
27	53	56	60	64	68	72	76	80	84	88
28	92	95	99	*03	*07	*11	*15	*19	*23	*27
29	11.31	34	38	42	46	50	54	58	62	66
0.30	11.70	73	77	81	85	89	93	97	*01	*05
31	12.09	12	16	20	24	28	32	36	40	44
32	48	51	55	59	63	67	71	75	79	83
33	87	90	94	98	*02	*06	*10	*14	*18	*22
34	13.26	29	33	37	41	45	49	53	57	61
35	65	68	72	76	80	84	88	92	96	*00
36	14.04	07	11	15	19	23	27	31	35	39
37	43	46	50	54	58	62	66	70	74	78
38	82	85	89	93	97	*01	*05	*09	*13	*17
39	15.21	24	28	32	36	40	44	48	52	56
0.40	15.60	63	67	71	75	79	83	87	91	95
41	99	*02	*06	*10	*14	*18	*22	*26	*30	*34
42	16.38	41	45	49	53	57	61	65	69	73
43	77	80	84	88	92	96	*00	*04	*08	*12
44	17.16	19	23	27	31	35	39	43	47	51
45	55	58	62	66	70	74	78	82	86	90
46	94	97	*01	*05	*09	*13	*17	*21	*25	*29
47	18.33	36	40	44	48	52	56	60	64	68
48	72	75	79	83	87	91	95	99	*03	*07
49	19.11	14	18	22	26	30	34	38	42	46
0.50	s 19.50	53	57	61	65	69	73	77	81	85
	0	9	8	7	6	5	4	3	2	1
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	9	8	7	6	5	4	3	2	1
0.50	19.50	53	57	61	65	69	73	77	81	85
51	89	92	96	*00	*04	*08	*12	*16	*20	*24
52	20.28	31	35	39	43	47	51	55	59	63
53	67	70	74	78	82	86	90	94	98	*02
54	21.06	09	13	17	21	25	29	33	37	41
55	45	48	52	56	60	64	68	72	76	80
56	84	87	91	95	99	*03	*07	*11	*15	*19
57	22.23	26	30	34	38	42	46	50	54	58
58	62	65	69	73	77	81	85	89	93	97
59	23.01	04	08	12	16	20	24	28	32	36
0.60	23.40	43	47	51	55	59	63	67	71	75
61	79	82	86	90	94	98	*02	*06	*10	*14
62	24.18	21	25	29	33	37	41	45	49	53
63	57	60	64	68	72	76	80	84	88	92
64	96	99	*03	*07	*11	*15	*19	*23	*27	*31
65	25.35	38	42	46	50	54	58	62	66	70
66	74	77	81	85	89	93	97	*01	*05	*09
67	26.13	16	20	24	28	32	36	40	44	48
68	52	55	59	63	67	71	75	79	83	87
69	91	94	98	*02	*06	*10	*14	*18	*22	*26
0.70	27.30	33	37	41	45	49	53	57	61	65
71	69	72	76	80	84	88	92	96	*00	*04
72	28.08	11	15	19	23	27	31	35	39	43
73	47	50	54	58	62	66	70	74	78	82
74	86	89	93	97	*01	*05	*09	*13	*17	*21
75	29.25	28	32	36	40	44	48	52	56	60
76	64	67	71	75	79	83	87	91	95	99
77	30.03	06	10	14	18	22	26	30	34	38
78	42	45	49	53	57	61	65	69	73	77
79	81	84	88	92	96	*00	*04	*08	*12	*16
0.80	31.20	23	27	31	35	39	43	47	51	55
81	59	62	66	70	74	78	82	86	90	94
82	98	*01	*05	*09	*13	*17	*21	*25	*29	*33
83	32.37	40	44	48	52	56	60	64	68	72
84	76	79	83	87	91	95	99	*03	*07	*11
85	33.15	18	22	26	30	34	38	42	46	50
86	54	57	61	65	69	73	77	81	85	89
87	93	96	*00	*04	*08	*12	*16	*20	*24	*28
88	34.32	35	39	43	47	51	55	59	63	67
89	71	74	78	82	86	90	94	98	*02	*06
0.90	35.10	13	17	21	25	29	33	37	41	45
91	49	52	56	60	64	68	72	76	80	84
92	88	91	95	99	*03	*07	*11	*15	*19	*23
93	36.27	30	34	38	42	46	50	54	58	62
94	66	69	73	77	81	85	89	93	97	*01
95	37.05	08	12	16	20	24	28	32	36	40
96	44	47	51	55	59	63	67	71	75	79
97	83	86	90	94	98	*02	*06	*10	*14	*18
98	38.22	25	29	33	37	41	45	49	53	57
99	61	64	68	72	76	80	84	88	92	96
1.00	s 39.00	03	07	11	15	19	23	27	31	35
	0	9	8	7	6	5	4	3	2	1
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 40^s

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	s 0.00	04	08	12	16	20	24	28	32	36
01	40	44	48	52	56	60	64	68	72	76
02	80	84	88	92	96	*00	*04	*08	*12	*16
03	1.20	24	28	32	36	40	44	48	52	56
04	60	64	68	72	76	80	84	88	92	96
05	2.00	04	08	12	16	20	24	28	32	36
06	40	44	48	52	56	60	64	68	72	76
07	80	84	88	92	96	*00	*04	*08	*12	*16
08	3.20	24	28	32	36	40	44	48	52	56
09	60	64	68	72	76	80	84	88	92	96
0.10	4.00	04	08	12	16	20	24	28	32	36
11	40	44	48	52	56	60	64	68	72	76
12	80	84	88	92	96	*00	*04	*08	*12	*16
13	5.20	24	28	32	36	40	44	48	52	56
14	60	64	68	72	76	80	84	88	92	96
15	6.00	04	08	12	16	20	24	28	32	36
16	40	44	48	52	56	60	64	68	72	76
17	80	84	88	92	96	*00	*04	*08	*12	*16
18	7.20	24	28	32	36	40	44	48	52	56
19	60	64	68	72	76	80	84	88	92	96
0.20	8.00	04	08	12	16	20	24	28	32	36
21	40	44	48	52	56	60	64	68	72	76
22	80	84	88	92	96	*00	*04	*08	*12	*16
23	9.20	24	28	32	36	40	44	48	52	56
24	60	64	68	72	76	80	84	88	92	96
25	10.00	04	08	12	16	20	24	28	32	36
26	40	44	48	52	56	60	64	68	72	76
27	80	84	88	92	96	*00	*04	*08	*12	*16
28	11.20	24	28	32	36	40	44	48	52	56
29	60	64	68	72	76	80	84	88	92	96
0.30	12.00	04	08	12	16	20	24	28	32	36
31	40	44	48	52	56	60	64	68	72	76
32	80	84	88	92	96	*00	*04	*08	*12	*16
33	13.20	24	28	32	36	40	44	48	52	56
34	60	64	68	72	76	80	84	88	92	96
35	14.00	04	08	12	16	20	24	28	32	36
36	40	44	48	52	56	60	64	68	72	76
37	80	84	88	92	96	*00	*04	*08	*12	*16
38	15.20	24	28	32	36	40	44	48	52	56
39	60	64	68	72	76	80	84	88	92	96
0.40	16.00	04	08	12	16	20	24	28	32	36
41	40	44	48	52	56	60	64	68	72	76
42	80	84	88	92	96	*00	*04	*08	*12	*16
43	17.20	24	28	32	36	40	44	48	52	56
44	60	64	68	72	76	80	84	88	92	96
45	18.00	04	08	12	16	20	24	28	32	36
46	40	44	48	52	56	60	64	68	72	76
47	80	84	88	92	96	*00	*04	*08	*12	*16
48	19.20	24	28	32	36	40	44	48	52	56
49	60	64	68	72	76	80	84	88	92	96
0.50	s 20.00	04	08	12	16	20	24	28	32	36
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	s 20.00	04	08	12	16	20	24	28	32	36
51	40	44	48	52	56	60	64	68	72	76
52	80	84	88	92	96	*00	*04	*08	*12	*16
53	21.20	24	28	32	36	40	44	48	52	56
54	60	64	68	72	76	80	84	88	92	96
55	22.00	04	08	12	16	20	24	28	32	36
56	40	44	48	52	56	60	64	68	72	76
57	80	84	88	92	96	*00	*04	*08	*12	*16
58	23.20	24	28	32	36	40	44	48	52	56
59	60	64	68	72	76	80	84	88	92	96
0.60	24.00	04	08	12	16	20	24	28	32	36
61	40	44	48	52	56	60	64	68	72	76
62	80	84	88	92	96	*00	*04	*08	*12	*16
63	25.20	24	28	32	36	40	44	48	52	56
64	60	64	68	72	76	80	84	88	92	96
65	26.00	04	08	12	16	20	24	28	32	36
66	40	44	48	52	56	60	64	68	72	76
67	80	84	88	92	96	*00	*04	*08	*12	*16
68	27.20	24	28	32	36	40	44	48	52	56
69	60	64	68	72	76	80	84	88	92	96
0.70	28.00	04	08	12	16	20	24	28	32	36
71	40	44	48	52	56	60	64	68	72	76
72	80	84	88	92	96	*00	*04	*08	*12	*16
73	29.20	24	28	32	36	40	44	48	52	56
74	60	64	68	72	76	80	84	88	92	96
75	30.00	04	08	12	16	20	24	28	32	36
76	40	44	48	52	56	60	64	68	72	76
77	80	84	88	92	96	*00	*04	*08	*12	*16
78	31.20	24	28	32	36	40	44	48	52	56
79	60	64	68	72	76	80	84	88	92	96
0.80	32.00	04	08	12	16	20	24	28	32	36
81	40	44	48	52	56	60	64	68	72	76
82	80	84	88	92	96	*00	*04	*08	*12	*16
83	33.20	24	28	32	36	40	44	48	52	56
84	60	64	68	72	76	80	84	88	92	96
85	34.00	04	08	12	16	20	24	28	32	36
86	40	44	48	52	56	60	64	68	72	76
87	80	84	88	92	96	*00	*04	*08	*12	*16
88	35.20	24	28	32	36	40	44	48	52	56
89	60	64	68	72	76	80	84	88	92	96
0.90	36.00	04	08	12	16	20	24	28	32	36
91	40	44	48	52	56	60	64	68	72	76
92	80	84	88	92	96	*00	*04	*08	*12	*16
93	37.20	24	28	32	36	40	44	48	52	56
94	60	64	68	72	76	80	84	88	92	96
95	38.00	04	08	12	16	20	24	28	32	36
96	40	44	48	52	56	60	64	68	72	76
97	80	84	88	92	96	*00	*04	*08	*12	*16
98	39.20	24	28	32	36	40	44	48	52	56
99	60	64	68	72	76	80	84	88	92	96
1.00	s 40.00	04	08	12	16	20	24	28	32	36
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 41^s — Tav. 9.

Δξ	0	1	2	3	4	5	6	7	8	9	Δξ	0	1	2	3	4	5	6	7	8	9
0.00	s 0.00	04	08	12	16	20	24	28	32	36	0.50	s 20.50	54	58	62	66	70	74	78	82	86
01	41	45	49	53	57	61	65	69	73	77	51	91	95	99	*03	*07	*11	*15	*19	*23	*27
02	82	86	90	94	98	*02	*06	*10	*14	*18	52	21.32	36	40	44	48	52	56	60	64	68
03	1.23	27	31	35	39	43	47	51	55	59	53	73	77	81	85	89	93	97	*01	*05	*09
04	64	68	72	76	80	84	88	92	96	*00	54	22.14	18	22	26	30	34	38	42	46	50
05	2.05	09	13	17	21	25	29	33	37	41	55	55	59	63	67	71	75	79	83	87	91
06	46	50	54	58	62	66	70	74	78	82	56	96	*00	*04	*08	*12	*16	*20	*24	*28	*32
07	87	91	95	99	*03	*07	*11	*15	*19	*23	57	23.37	41	45	49	53	57	61	65	69	73
08	3.28	32	36	40	44	48	52	56	60	64	58	78	82	86	90	94	98	*02	*06	*10	*14
09	69	73	77	81	85	89	93	97	*01	*05	59	24.19	23	27	31	35	39	43	47	51	55
0.10	4.10	14	18	22	26	30	34	38	42	46	0.60	24.60	64	68	72	76	80	84	88	92	96
11	51	55	59	63	67	71	75	79	83	87	61	25.01	05	09	13	17	21	25	29	33	37
12	92	96	*00	*04	*08	*12	*16	*20	*24	*28	62	42	46	50	54	58	62	66	70	74	78
13	5.33	37	41	45	49	53	57	61	65	69	63	83	87	91	95	99	*03	*07	*11	*15	*19
14	74	78	82	86	90	94	98	*02	*06	*10	64	26.24	28	32	36	40	44	48	52	56	60
15	6.15	19	23	27	31	35	39	43	47	51	65	65	69	73	77	81	85	89	93	97	*01
16	56	60	64	68	72	76	80	84	88	92	66	27.06	10	14	18	22	26	30	34	38	42
17	97	*01	*05	*09	*13	*17	*21	*25	*29	*33	67	47	51	55	59	63	67	71	75	79	83
18	7.38	42	46	50	54	58	62	66	70	74	68	88	92	96	*00	*04	*08	*12	*16	*20	*24
19	79	83	87	91	95	99	*03	*07	*11	*15	69	28.29	33	37	41	45	49	53	57	61	65
0.20	8.20	24	28	32	36	40	44	48	52	56	0.70	28.70	74	78	82	86	90	94	98	*02	*06
21	61	65	69	73	77	81	85	89	93	97	71	29.11	15	19	23	27	31	35	39	43	47
22	9.02	06	10	14	18	22	26	30	34	38	72	52	56	60	64	68	72	76	80	84	88
23	43	47	51	55	59	63	67	71	75	79	73	93	97	*01	*05	*09	*13	*17	*21	*25	*29
24	84	88	92	96	*00	*04	*08	*12	*16	*20	74	30.34	38	42	46	50	54	58	62	66	70
25	10.25	29	33	37	41	45	49	53	57	61	75	75	79	83	87	91	95	99	*03	*07	*11
26	66	70	74	78	82	86	90	94	98	*02	76	31.16	20	24	28	32	36	40	44	48	52
27	11.07	11	15	19	23	27	31	35	39	43	77	57	61	65	69	73	77	81	85	89	93
28	48	52	56	60	64	68	72	76	80	84	78	98	*02	*06	*10	*14	*18	*22	*26	*30	*34
29	89	93	97	*01	*05	*09	*13	*17	*21	*25	79	32.39	43	47	51	55	59	63	67	71	75
0.30	12.30	34	38	42	46	50	54	58	62	66	0.80	32.80	84	88	92	96	*00	*04	*08	*12	*16
31	71	75	79	83	87	91	95	99	*03	*07	81	33.21	25	29	33	37	41	45	49	53	57
32	13.12	16	20	24	28	32	36	40	44	48	82	62	66	70	74	78	82	86	90	94	98
33	53	57	61	65	69	73	77	81	85	89	83	34.03	07	11	15	19	23	27	31	35	39
34	94	98	*02	*06	*10	*14	*18	*22	*26	*30	84	44	48	52	56	60	64	68	72	76	80
35	14.35	39	43	47	51	55	59	63	67	71	85	85	89	93	97	*01	*05	*09	*13	*17	*21
36	76	80	84	88	92	96	*00	*04	*08	*12	86	35.26	30	34	38	42	46	50	54	58	62
37	15.17	21	25	29	33	37	41	45	49	53	87	67	71	75	79	83	87	91	95	99	*03
38	58	62	66	70	74	78	82	86	90	94	88	36.08	12	16	20	24	28	32	36	40	44
39	99	*03	*07	*11	*15	*19	*23	*27	*31	*35	89	49	53	57	61	65	69	73	77	81	85
0.40	16.40	44	48	52	56	60	64	68	72	76	0.90	36.90	94	98	*02	*06	*10	*14	*18	*22	*26
41	81	85	89	93	97	*01	*05	*09	*13	*17	91	37.31	35	39	43	47	51	55	59	63	67
42	17.22	26	30	34	38	42	46	50	54	58	92	72	76	80	84	88	92	96	*00	*04	*08
43	63	67	71	75	79	83	87	91	95	99	93	38.13	17	21	25	29	33	37	41	45	49
44	18.04	08	12	16	20	24	28	32	36	40	94	54	58	62	66	70	74	78	82	86	90
45	45	49	53	57	61	65	69	73	77	81	95	95	99	*03	*07	*11	*15	*19	*23	*27	*31
46	86	90	94	98	*02	*06	*10	*14	*18	*22	96	39.36	40	44	48	52	56	60	64	68	72
47	19.27	31	35	39	43	47	51	55	59	63	97	77	81	85	89	93	97	*01	*05	*09	*13
48	68	72	76	80	84	88	92	96	*00	*04	98	40.18	22	26	30	34	38	42	46	50	54
49	20.09	13	17	21	25	29	33	37	41	45	99	59	63	67	71	75	79	83	87	91	95
0.50	s 20.50	54	58	62	66	70	74	78	82	86	1.00	s 41.00	04	08	12	16	20	24	28	32	36
Δξ	0	1	2	3	4	5	6	7	8	9	Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	^{s}0.00 ^{0}	04 ^{2}	08 ^{4}	12 ^{6}	16 ^{8}	21 ^{0}	25 ^{2}	29 ^{4}	33 ^{6}	37 ^{8}
01	42	46	50	54	58	63	67	71	75	79
02	84	88	92	96	*00	*05	*09	*13	*17	*21
03	1.26	30	34	38	42	47	51	55	59	63
04	68	72	76	80	84	89	93	97	*01	*05
05	2.10	14	18	22	26	31	35	39	43	47
06	52	56	60	64	68	73	77	81	85	89
07	94	98	*02	*06	*10	*15	*19	*23	*27	*31
08	3.36	40	44	48	52	57	61	65	69	73
09	78	82	86	90	94	99	*03	*07	*11	*15
0.10	4.20	24	28	32	36	41	45	49	53	57
11	62	66	70	74	78	83	87	91	95	99
12	5.04	08	12	16	20	25	29	33	37	41
13	46	50	54	58	62	67	71	75	79	83
14	88	92	96	*00	*04	*09	*13	*17	*21	*25
15	6.30	34	38	42	46	51	55	59	63	67
16	72	76	80	84	88	93	97	*01	*05	*09
17	7.14	18	22	26	30	35	39	43	47	51
18	56	60	64	68	72	77	81	85	89	93
19	98	*02	*06	*10	*14	*19	*23	*27	*31	*35
0.20	8.40	44	48	52	56	61	65	69	73	77
21	82	86	90	94	98	*03	*07	*11	*15	*19
22	9.24	28	32	36	40	45	49	53	57	61
23	66	70	74	78	82	87	91	95	99	*03
24	10.08	12	16	20	24	29	33	37	41	45
25	50	54	58	62	66	71	75	79	83	87
26	92	96	*00	*04	*08	*13	*17	*21	*25	*29
27	11.34	38	42	46	50	55	59	63	67	71
28	76	80	84	88	92	97	*01	*05	*09	*13
29	12.18	22	26	30	34	39	43	47	51	55
0.30	12.60	64	68	72	76	81	85	89	93	97
31	13.02	06	10	14	18	23	27	31	35	39
32	44	48	52	56	60	65	69	73	77	81
33	86	90	94	98	*02	*07	*11	*15	*19	*23
34	14.28	32	36	40	44	49	53	57	61	65
35	70	74	78	82	86	91	95	99	*03	*07
36	15.12	16	20	24	28	33	37	41	45	49
37	54	58	62	66	70	75	79	83	87	91
38	96	*00	*04	*08	*12	*17	*21	*25	*29	*33
39	16.38	42	46	50	54	59	63	67	71	75
0.40	16.80	84	88	92	96	*01	*05	*09	*13	*17
41	17.22	26	30	34	38	43	47	51	55	59
42	64	68	72	76	80	85	89	93	97	*01
43	18.06	10	14	18	22	27	31	35	39	43
44	48	52	56	60	64	69	73	77	81	85
45	90	94	98	*02	*06	*11	*15	*19	*23	*27
46	19.32	36	40	44	48	53	57	61	65	69
47	74	78	82	86	90	95	99	*03	*07	*11
48	20.16	20	24	28	32	37	41	45	49	53
49	58	62	66	70	74	79	83	87	91	95
0.50	^{s}21.00 $_{0}$	04 $_{2}$	08 $_{4}$	12 $_{6}$	16 $_{8}$	21 $_{0}$	25 $_{2}$	29 $_{4}$	33 $_{6}$	37 $_{8}$
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	^{s}21.00 ^{0}	04 ^{2}	08 ^{4}	12 ^{6}	16 ^{8}	21 ^{0}	25 ^{2}	29 ^{4}	33 ^{6}	37 ^{8}
51	42	46	50	54	58	63	67	71	75	79
52	84	88	92	96	*00	*05	*09	*13	*17	*21
53	22.26	30	34	38	42	47	51	55	59	63
54	68	72	76	80	84	89	93	97	*01	*05
55	23.10	14	18	22	26	31	35	39	43	47
56	52	56	60	64	68	73	77	81	85	89
57	94	98	*02	*06	*10	*15	*19	*23	*27	*31
58	24.36	40	44	48	52	57	61	65	69	73
59	78	82	86	90	94	99	*03	*07	*11	*15
0.60	25.20	24	28	32	36	41	45	49	53	57
61	62	66	70	74	78	83	87	91	95	99
62	26.04	08	12	16	20	25	29	33	37	41
63	46	50	54	58	62	67	71	75	79	83
64	88	92	96	*00	*04	*09	*13	*17	*21	*25
65	27.30	34	38	42	46	51	55	59	63	67
66	72	76	80	84	88	93	97	*01	*05	*09
67	28.14	18	22	26	30	35	39	43	47	51
68	56	60	64	68	72	77	81	85	89	93
69	98	*02	*06	*10	*14	*19	*23	*27	*31	*35
0.70	29.40	44	48	52	56	61	65	69	73	77
71	82	86	90	94	98	*03	*07	*11	*15	*19
72	30.24	28	32	36	40	45	49	53	57	61
73	66	70	74	78	82	87	91	95	99	*03
74	31.08	12	16	20	24	29	33	37	41	45
75	50	54	58	62	66	71	75	79	83	87
76	92	96	*00	*04	*08	*13	*17	*21	*25	*29
77	32.34	38	42	46	50	55	59	63	67	71
78	76	80	84	88	92	97	*01	*05	*09	*13
79	33.18	22	26	30	34	39	43	47	51	55
0.80	33.60	64	68	72	76	81	85	89	93	97
81	34.02	06	10	14	18	23	27	31	35	39
82	44	48	52	56	60	65	69	73	77	81
83	86	90	94	98	*02	*07	*11	*15	*19	*23
84	35.28	32	36	40	44	49	53	57	61	65
85	70	74	78	82	86	91	95	99	*03	*07
86	36.12	16	20	24	28	33	37	41	45	49
87	54	58	62	66	70	75	79	83	87	91
88	96	*00	*04	*08	*12	*17	*21	*25	*29	*33
89	37.38	42	46	50	54	59	63	67	71	75
0.90	37.80	84	88	92	96	*01	*05	*09	*13	*17
91	38.22	26	30	34	38	43	47	51	55	59
92	64	68	72	76	80	85	89	93	97	*01
93	39.06	10	14	18	22	27	31	35	39	43
94	48	52	56	60	64	69	73	77	81	85
95	90	94	98	*02	*06	*11	*15	*19	*23	*27
96	40.32	36	40	44	48	53	57	61	65	69
97	74	78	82	86	90	95	99	*03	*07	*11
98	41.16	20	24	28	32	37	41	45	49	53
99	58	62	66	70	74	79	83	87	91	95
1.00	^{s}42.00 $_{0}$	04 $_{2}$	08 $_{4}$	12 $_{6}$	16 $_{8}$	21 $_{0}$	25 $_{2}$	29 $_{4}$	33 $_{6}$	37 $_{8}$
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	0	3	6	9	2	5	8	1	4	7
0.00	s 0.00	04	08	12	17	21	25	30	34	38
01	43	47	51	55	60	64	68	73	77	81
02	86	90	94	98	*03	*07	*11	*16	*20	*24
03	1.29	33	37	41	46	50	54	59	63	67
04	72	76	80	84	89	93	97	*02	*06	*10
05	2.15	19	23	27	32	36	40	45	49	53
06	58	62	66	70	75	79	83	88	92	96
07	3.01	05	09	13	18	22	26	31	35	39
08	44	48	52	56	61	65	69	74	78	82
09	87	91	95	99	*04	*08	*12	*17	*21	*25
0.10	4.30	34	38	42	47	51	55	60	64	68
11	73	77	81	85	90	94	98	*03	*07	*11
12	5.16	20	24	28	33	37	41	46	50	54
13	59	63	67	71	76	80	84	89	93	97
14	6.02	06	10	14	19	23	27	32	36	40
15	45	49	53	57	62	66	70	75	79	83
16	88	92	96	*00	*05	*09	*13	*18	*22	*26
17	7.31	35	39	43	48	52	56	61	65	69
18	74	78	82	86	91	95	99	*04	*08	*12
19	8.17	21	25	29	34	38	42	47	51	55
0.20	8.60	64	68	72	77	81	85	90	94	98
21	9.03	07	11	15	20	24	28	33	37	41
22	46	50	54	58	63	67	71	76	80	84
23	89	93	97	*01	*06	*10	*14	*19	*23	*27
24	10.32	36	40	44	49	53	57	62	66	70
25	75	79	83	87	92	96	*00	*05	*09	*13
26	11.18	22	26	30	35	39	43	48	52	56
27	61	65	69	73	78	82	86	91	95	99
28	12.04	08	12	16	21	25	29	34	38	42
29	47	51	55	59	64	68	72	77	81	85
0.30	12.90	94	98	*02	*07	*11	*15	*20	*24	*28
31	13.33	37	41	45	50	54	58	63	67	71
32	76	80	84	88	93	97	*01	*06	*10	*14
33	14·19	23	27	31	36	40	44	49	53	57
34	62	66	70	74	79	83	87	92	96	*00
35	15.05	09	13	17	22	26	30	35	39	43
36	48	52	56	60	65	69	73	78	82	86
37	91	95	99	*03	*08	*12	*16	*21	*25	*29
38	16.34	38	42	46	51	55	59	64	68	72
39	77	81	85	89	94	98	*02	*07	*11	*15
0.40	17.20	24	28	32	37	41	45	50	54	58
41	63	67	71	75	80	84	88	93	97	*01
42	18.06	10	14	18	23	27	31	36	40	44
43	49	53	57	61	66	70	74	79	83	87
44	92	96	*00	*04	*09	*13	*17	*22	*26	*30
45	19.35	39	43	47	52	56	60	65	69	73
46	78	82	86	90	95	99	*03	*08	*12	*16
47	20.21	25	29	33	38	42	46	51	55	59
48	64	68	72	76	81	85	89	94	98	*02
49	21.07	11	15	19	24	28	32	37	41	45
0.50	s 21.50	54	58	62	67	71	75	80	84	88
	0	3	6	9	2	5	8	1	4	7
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	0	3	6	9	2	5	8	1	4	7
0.50	s 21.50	54	58	62	67	71	75	80	84	88
51	93	97	*01	*05	*10	*14	*18	*23	*27	*31
52	22.36	40	44	48	53	57	61	66	70	74
53	79	83	87	91	96	*00	*04	*09	*13	*17
54	23.22	26	30	34	39	43	47	52	56	60
55	65	69	73	77	82	86	90	95	99	*03
56	24.08	12	16	20	25	29	33	38	42	46
57	51	55	59	63	68	72	76	81	85	89
58	94	98	*02	*06	*11	*15	*19	*24	*28	*32
59	25.37	41	45	49	54	58	62	67	71	75
0.60	25.80	84	88	92	97	*01	*05	*10	*14	*18
61	26.23	27	31	35	40	44	48	53	57	61
62	66	70	74	78	83	87	91	96	*00	*04
63	27·09	13	17	21	26	30	34	39	43	47
64	52	56	60	64	69	73	77	82	86	90
65	95	99	*03	*07	*12	*16	*20	*25	*29	*33
66	28.38	42	46	50	55	59	63	68	72	76
67	81	85	89	93	98	*02	*06	*11	*15	*19
68	29.24	28	32	36	41	45	49	54	58	62
69	67	71	75	79	84	88	92	97	*01	*05
0.70	30.10	14	18	22	27	31	35	40	44	48
71	53	57	61	65	70	74	78	83	87	91
72	96	*00	*04	*08	*13	*17	*21	*26	*30	*34
73	31.39	43	47	51	56	60	64	69	73	77
74	82	86	90	94	99	*03	*07	*12	*16	*20
75	32.25	29	33	37	42	46	50	55	59	63
76	68	72	76	80	85	89	93	98	*02	*06
77	33.11	15	19	23	28	32	36	41	45	49
78	54	58	62	66	71	75	79	84	88	92
79	97	*01	*05	*09	*14	*18	*22	*27	*31	*35
0.80	34.40	44	48	52	57	61	65	70	74	78
81	83	87	91	95	*00	*04	*08	*13	*17	*21
82	35.26	30	34	38	43	47	51	56	60	64
83	69	73	77	81	86	90	94	99	*03	*07
84	36.12	16	20	24	29	33	37	42	46	50
85	55	59	63	67	72	76	80	85	89	93
86	98	*02	*06	*10	*15	*19	*23	*28	*32	*36
87	37.41	45	49	53	58	62	66	71	75	79
88	84	88	92	96	*01	*05	*09	*14	*18	*22
89	38.27	31	35	39	44	48	52	57	61	65
0.90	38.70	74	78	82	87	91	95	*00	*04	*08
91	39.13	17	21	25	30	34	38	43	47	51
92	56	60	64	68	73	77	81	86	90	94
93	99	*03	*07	*11	*16	*20	*24	*29	*33	*37
94	40.42	46	50	54	59	63	67	72	76	80
95	85	89	93	97	*02	*06	*10	*15	*19	*23
96	41.28	32	36	40	45	49	53	58	62	66
97	71	75	79	83	88	92	96	*01	*05	*09
98	42.14	18	22	26	31	35	39	44	48	52
99	57	61	65	69	74	78	82	87	91	95
1.00	s 43.00	04	08	12	17	21	25	30	34	38
	0	3	6	9	2	5	8	1	4	7
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 44^s

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	4	8	2	6	0	4	8	2	6
0.00	0.00	04	08	13	17	22	26	30	35	39
01	44	48	52	57	61	66	70	74	79	83
02	88	92	96	*01	*05	*10	*14	*18	*23	*27
03	1.32	36	40	45	49	54	58	62	67	71
04	76	80	84	89	93	98	*02	*06	*11	*15
05	2.20	24	28	33	37	42	46	50	55	59
06	64	68	72	77	81	86	90	94	99	*03
07	3.08	12	16	21	25	30	34	38	43	47
08	52	56	60	65	69	74	78	82	87	91
09	96	*00	*04	*09	*13	*18	*22	*26	*31	*35
0.10	4.40	44	48	53	57	62	66	70	75	79
11	84	88	92	97	*01	*06	*10	*14	*19	*23
12	5.28	32	36	41	45	50	54	58	63	67
13	72	76	80	85	89	94	98	*02	*07	*11
14	6.16	20	24	29	33	38	42	46	51	55
15	60	64	68	73	77	82	86	90	95	99
16	7·04	08	12	17	21	26	30	34	39	43
17	48	52	56	61	65	70	74	78	83	87
18	92	96	*00	*05	*09	*14	*18	*22	*27	*31
19	8.36	40	44	49	53	58	62	66	71	75
0.20	8.80	84	88	93	97	*02	*06	*10	*15	*19
21	9.24	28	32	37	41	46	50	54	59	63
22	68	72	76	81	85	90	94	98	*03	*07
23	10·12	16	20	25	29	34	38	42	47	51
24	56	60	64	69	73	78	82	86	91	95
25	11.00	04	08	13	17	22	26	30	35	39
26	44	48	52	57	61	66	70	74	79	83
27	88	92	96	*01	*05	*10	*14	*18	*23	*27
28	12.32	36	40	45	49	54	58	62	67	71
29	76	80	84	89	93	98	*02	*06	*11	*15
0.30	13.20	24	28	33	37	42	46	50	55	59
31	64	68	72	77	81	86	90	94	99	*03
32	14.08	12	16	21	25	30	34	38	43	47
33	52	56	60	65	69	74	78	82	87	91
34	96	*00	*04	*09	*13	*18	*22	*26	*31	*35
35	15.40	44	48	53	57	62	66	70	75	79
36	84	88	92	97	*01	*06	*10	*14	*19	*23
37	16.28	32	36	41	45	50	54	58	63	67
38	72	76	80	85	89	94	98	*02	*07	*11
39	17.16	20	24	29	33	38	42	46	51	55
0.40	17.60	64	68	73	77	82	86	90	95	99
41	18.04	08	12	17	21	26	30	34	39	43
42	48	52	56	61	65	70	74	78	83	87
43	92	96	*00	*05	*09	*14	*18	*22	*27	*31
44	19.36	40	44	49	53	58	62	66	71	75
45	80	84	88	93	97	*02	*06	*10	*15	*19
46	20.24	28	32	37	41	46	50	54	59	63
47	68	72	76	81	85	90	94	98	*03	*07
48	21.12	16	20	25	29	34	38	42	47	51
49	56	60	64	69	73	78	82	86	91	95
0.50	s 22.00	04	08	13	17	22	26	30	35	39
	0	4	8	2	6	0	4	8	2	6
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	4	8	2	6	0	4	8	2	6
0.50	22.00	04	08	13	17	22	26	30	35	39
51	44	48	52	57	61	66	70	74	79	83
52	88	92	96	*01	*05	*10	*14	*18	*23	*27
53	23.32	36	40	45	49	54	58	62	67	71
54	76	80	84	89	93	98	*02	*06	*11	*15
55	24.20	24	28	33	37	42	46	50	55	59
56	64	68	72	77	81	86	90	94	99	*03
57	25.08	12	16	21	25	30	34	38	43	47
58	52	56	60	65	69	74	78	82	87	91
59	96	*00	*04	*09	*13	*18	*22	*26	*31	*35
0.60	26.40	44	48	53	57	62	66	70	75	79
61	84	88	92	97	*01	*06	*10	*14	*19	*23
62	27.28	32	36	41	45	50	54	58	63	67
63	72	76	80	85	89	94	98	*02	*07	*11
64	28.16	20	24	29	33	38	42	46	51	55
65	60	64	68	73	77	82	86	90	95	99
66	29·04	08	12	17	21	26	30	34	39	43
67	48	52	56	61	65	70	74	78	83	87
68	92	96	*00	*05	*09	*14	*18	*22	*27	*31
69	30.36	40	44	49	53	58	62	66	71	75
0.70	30.80	84	88	93	97	*02	*06	*10	*15	*19
71	31.24	28	32	37	41	46	50	54	59	63
72	68	72	76	81	85	90	94	98	*03	*07
73	32.12	16	20	25	29	34	38	42	47	51
74	56	60	64	69	73	78	82	86	91	95
75	33.00	04	08	13	17	22	26	30	35	39
76	44	48	52	57	61	66	70	74	79	83
77	88	92	96	*01	*05	*10	*14	*18	*23	*27
78	34.32	36	40	45	49	54	58	62	67	71
79	76	80	84	89	93	98	*02	*06	*11	*15
0.80	35.20	24	28	33	37	42	46	50	55	59
81	64	68	72	77	81	86	90	94	99	*03
82	36.08	12	16	21	25	30	34	38	43	47
83	52	56	60	65	69	74	78	82	87	91
84	96	*00	*04	*09	*13	*18	*22	*26	*31	*35
85	37.40	44	48	53	57	62	66	70	75	79
86	84	88	92	97	*01	*06	*10	*14	*19	*23
87	38.28	32	36	41	45	50	54	58	63	67
88	72	76	80	85	89	94	98	*02	*07	*11
89	39.16	20	24	29	33	38	42	46	51	55
0.90	39.60	64	68	73	77	82	86	90	95	99
91	40.04	08	12	17	21	26	30	34	39	43
92	48	52	56	61	65	70	74	78	83	87
93	92	96	*00	*05	*09	*14	*18	*22	*27	*31
94	41.36	40	44	49	53	58	62	66	71	75
95	80	84	88	93	97	*02	*06	*10	*15	*19
96	42.24	28	32	37	41	46	50	54	59	63
97	68	72	76	81	85	90	94	98	*03	*07
98	43.12	16	20	25	29	34	38	42	47	51
99	56	60	64	69	73	78	82	86	91	95
1.00	s 44.00	04	08	13	17	22	26	30	35	39
	0	4	8	2	6	0	4	8	2	6
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	5	0	5	0	5	0	5	0	5
0.00	0.00	04	09	13	18	22	27	31	36	40
01	45	49	54	58	63	67	72	76	81	85
02	90	94	99	*03	*08	*12	*17	*21	*26	*30
03	1.35	39	44	48	53	57	62	66	71	75
04	80	84	89	93	98	*02	*07	*11	*16	*20
05	2.25	29	34	38	43	47	52	56	61	65
06	70	74	79	83	88	92	97	*01	*06	*10
07	3.15	19	24	28	33	37	42	46	51	55
08	60	64	69	73	78	82	87	91	96	*00
09	4.05	09	14	18	23	27	32	36	41	45
0.10	4.50	54	59	63	68	72	77	81	86	90
11	95	99	*04	*08	*13	*17	*22	*26	*31	*35
12	5.40	44	49	53	58	62	67	71	76	80
13	85	89	94	98	*03	*07	*12	*16	*21	*25
14	6.30	34	39	43	48	52	57	61	66	70
15	75	79	84	88	93	97	*02	*06	*11	*15
16	7.20	24	29	33	38	42	47	51	56	60
17	65	69	74	78	83	87	92	96	*01	*05
18	8.10	14	19	23	28	32	37	41	46	50
19	55	59	64	68	73	77	82	86	91	95
0.20	9.00	04	09	13	18	22	27	31	36	40
21	45	49	54	58	63	67	72	76	81	85
22	90	94	99	*03	*08	*12	*17	*21	*26	*30
23	10.35	39	44	48	53	57	62	66	71	75
24	80	84	89	93	98	*02	*07	*11	*16	*20
25	11.25	29	34	38	43	47	52	56	61	65
26	70	74	79	83	88	92	97	*01	*06	*10
27	12.15	19	24	28	33	37	42	46	51	55
28	60	64	69	73	78	82	87	91	96	*00
29	13·05	09	14	18	23	27	32	36	41	45
0.30	13.50	54	59	63	68	72	77	81	86	90
31	95	99	*04	*08	*13	*17	*22	*26	*31	*35
32	14.40	44	49	53	58	62	67	71	76	80
33	85	89	94	98	*03	*07	*12	*16	*21	*25
34	15.30	34	39	43	48	52	57	61	66	70
35	75	79	84	88	93	97	*02	*06	*11	*15
36	16.20	24	29	33	38	42	47	51	56	60
37	65	69	74	78	83	87	92	96	*01	*05
38	17.10	14	19	23	28	32	37	41	46	50
39	55	59	64	68	73	77	82	86	91	95
0.40	18.00	04	09	13	18	22	27	31	36	40
41	45	49	54	58	63	67	72	76	81	85
42	90	94	99	*03	*08	*12	*17	*21	*26	*30
43	19.35	39	44	48	53	57	62	66	71	75
44	80	84	89	93	98	*02	*07	*11	*16	*20
45	20·25	29	34	38	43	47	52	56	61	65
46	70	74	79	83	88	92	97	*01	*06	*10
47	21.15	19	24	28	33	37	42	46	51	55
48	60	64	69	73	78	82	87	91	96	*00
49	22.05	09	14	18	23	27	32	36	41	45
0.50	s 22.50	54	59	63	68	72	77	81	86	90
	0	5	0	5	0	5	0	5	0	5
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
	s 0	5	0	5	0	5	0	5	0	5
0.50	22.50	54	59	63	68	72	77	81	86	90
51	95	99	*04	*08	*13	*17	*22	*26	*31	*35
52	23.40	44	49	53	58	62	67	71	76	80
53	85	89	94	98	*03	*07	*12	*16	*21	*25
54	24.30	34	39	43	48	52	57	61	66	70
55	75	79	84	88	93	97	*02	*06	*11	*15
56	25.20	24	29	33	38	42	47	51	56	60
57	65	69	74	78	83	87	92	96	*01	*05
58	26.10	14	19	23	28	32	37	41	46	50
59	55	59	64	68	73	77	82	86	91	95
0.60	27.00	04	09	13	18	22	27	31	36	40
61	45	49	54	58	63	67	72	76	81	85
62	90	94	99	*03	*08	*12	*17	*21	*26	*30
63	28.35	39	44	48	53	57	62	66	71	75
64	80	84	89	93	98	*02	*07	*11	*16	*20
65	29.25	29	34	38	43	47	52	56	61	65
66	70	74	79	83	88	92	97	*01	*06	*10
67	30.15	19	24	28	33	37	42	46	51	55
68	60	64	69	73	78	82	87	91	96	*00
69	31.05	09	14	18	23	27	32	36	41	45
0.70	31·50	54	59	63	68	72	77	81	86	90
71	95	99	*04	*08	*13	*17	*22	*26	*31	*35
72	32.40	44	49	53	58	62	67	71	76	80
73	85	89	94	98	*03	*07	*12	*16	*21	*25
74	33.30	34	39	43	48	52	57	61	66	70
75	75	79	84	88	93	97	*02	*06	*11	*15
76	34.20	24	29	33	38	42	47	51	56	60
77	65	69	74	78	83	87	92	96	*01	*05
78	35·10	14	19	23	28	32	37	41	46	50
79	55	59	64	68	73	77	82	86	91	95
0.80	36.00	04	09	13	18	22	27	31	36	40
81	45	49	54	58	63	67	72	76	81	85
82	90	94	99	*03	*08	*12	*17	*21	*26	*30
83	37.35	39	44	48	53	57	62	66	71	75
84	80	84	89	93	98	*02	*07	*11	*16	*20
85	38.25	29	34	38	43	47	52	56	61	65
86	70	74	79	83	88	92	97	*01	*06	*10
87	39.15	19	24	28	33	37	42	46	51	55
88	60	64	69	73	78	82	87	91	96	*00
89	40.05	09	14	18	23	27	32	36	41	45
0.90	40.50	54	59	63	68	72	77	81	86	90
91	95	99	*04	*08	*13	*17	*22	*26	*31	*35
92	41.40	44	49	53	58	62	67	71	76	80
93	85	89	94	98	*03	*07	*12	*16	*21	*25
94	42.30	34	39	43	48	52	57	61	66	70
95	75	79	84	88	93	97	*02	*06	*11	*15
96	43.20	24	29	33	38	42	47	51	56	60
97	65	69	74	78	83	87	92	96	*01	*05
98	44.10	14	19	23	28	32	37	41	46	50
99	55	59	64	68	73	77	82	86	91	95
1.00	s 45.00	04	09	13	18	22	27	31	36	40
	0	5	0	5	0	5	0	5	0	5
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 46^s

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	0.00	04	09	13	18	23	27	32	36	41
01	46	50	55	59	64	69	73	78	82	87
02	92	96	*01	*05	*10	*15	*19	*24	*28	*33
03	1.38	42	47	51	56	61	65	70	74	79
04	84	88	93	97	*02	*07	*11	*16	*20	*25
05	2.30	34	39	43	48	53	57	62	66	71
06	76	80	85	89	94	99	*03	*08	*12	*17
07	3.22	26	31	35	40	45	49	54	58	63
08	68	72	77	81	86	91	95	*00	*04	*09
09	4.14	18	23	27	32	37	41	46	50	55
0.10	4.60	64	69	73	78	83	87	92	96	*01
11	5.06	10	15	19	24	29	33	38	42	47
12	52	56	61	65	70	75	79	84	88	93
13	98	*02	*07	*11	*16	*21	*25	*30	*34	*39
14	6.44	48	53	57	62	67	71	76	80	85
15	90	94	99	*03	*08	*13	*17	*22	*26	*31
16	7.36	40	45	49	54	59	63	68	72	77
17	82	86	91	95	*00	*05	*09	*14	*18	*23
18	8.28	32	37	41	46	51	55	60	64	69
19	74	78	83	87	92	97	*01	*06	*10	*15
0.20	9.20	24	29	33	38	43	47	52	56	61
21	66	70	75	79	84	89	93	98	*02	*07
22	10.12	16	21	25	30	35	39	44	48	53
23	58	62	67	71	76	81	85	90	94	99
24	11.04	08	13	17	22	27	31	36	40	45
25	50	54	59	63	68	73	77	82	86	91
26	96	*00	*05	*09	*14	*19	*23	*28	*32	*37
27	12.42	46	51	55	60	65	69	74	78	83
28	88	92	97	*01	*06	*11	*15	*20	*24	*29
29	13.34	38	43	47	52	57	61	66	70	75
0.30	13.80	84	89	93	98	*03	*07	*12	*16	*21
31	14.26	30	35	39	44	49	53	58	62	67
32	72	76	81	85	90	95	99	*04	*08	*13
33	15.18	22	27	31	36	41	45	50	54	59
34	64	68	73	77	82	87	91	96	*00	*05
35	16.10	14	19	23	28	33	37	42	46	51
36	56	60	65	69	74	79	83	88	92	97
37	17·02	06	11	15	20	25	29	34	38	43
38	48	52	57	61	66	71	75	80	84	89
39	94	98	*03	*07	*12	*17	*21	*26	*30	*35
0.40	18.40	44	49	53	58	63	67	72	76	81
41	86	90	95	99	*04	*09	*13	*18	*22	*27
42	19.32	36	41	45	50	55	59	64	68	73
43	78	82	87	91	96	*01	*05	*10	*14	*19
44	20·24	28	33	37	42	47	51	56	60	65
45	70	74	79	83	88	93	97	*02	*06	*11
46	21·16	20	25	29	34	39	43	48	52	57
47	62	66	71	75	80	85	89	94	98	*03
48	22.08	12	17	21	26	31	35	40	44	49
49	54	58	63	67	72	77	81	86	90	95
0.50	23.00	04	09	13	18	23	27	32	36	41
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	23.00	04	09	13	18	23	27	32	36	41
51	46	50	55	59	64	69	73	78	82	87
52	92	96	*01	*05	*10	*15	*19	*24	*28	*33
53	24.38	42	47	51	56	61	65	70	74	79
54	84	88	93	97	*02	*07	*11	*16	*20	*25
55	25.30	34	39	43	48	53	57	62	66	71
56	76	80	85	89	94	99	*03	*08	*12	*17
57	26.22	26	31	35	40	45	49	54	58	63
58	68	72	77	81	86	91	95	*00	*04	*09
59	27.14	18	23	27	32	37	41	46	50	55
0.60	27.60	64	69	73	78	83	87	92	96	*01
61	28.06	10	15	19	24	29	33	38	42	47
62	52	56	61	65	70	75	79	84	88	93
63	98	*02	*07	*11	*16	*21	*25	*30	*34	*39
64	29.44	48	53	57	62	67	71	76	80	85
65	90	94	99	*03	*08	*13	*17	*22	*26	*31
66	30.36	40	45	49	54	59	63	68	72	77
67	82	86	91	95	*00	*05	*09	*14	*18	*23
68	31.28	32	37	41	46	51	55	60	64	69
69	74	78	83	87	92	97	*01	*06	*10	*15
0.70	32.20	24	29	33	38	43	47	52	56	61
71	66	70	75	79	84	89	93	98	*02	*07
72	33.12	16	21	25	30	35	39	44	48	53
73	58	62	67	71	76	81	85	90	94	99
74	34.04	08	13	17	22	27	31	36	40	45
75	50	54	59	63	68	73	77	82	86	91
76	96	*00	*05	*09	*14	*19	*23	*28	*32	*37
77	35.42	46	51	55	60	65	69	74	78	83
78	88	92	97	*01	*06	*11	*15	*20	*24	*29
79	36.34	38	43	47	52	57	61	66	70	75
0.80	36.80	84	89	93	98	*03	*07	*12	*16	*21
81	37.26	30	35	39	44	49	53	58	62	67
82	72	76	81	85	90	95	99	*04	*08	*13
83	38·18	22	27	31	*36	41	45	50	54	59
84	64	68	73	77	82	87	91	96	*00	*05
85	39.10	14	19	23	28	33	37	42	46	51
86	56	60	65	69	74	79	83	88	92	97
87	40.02	06	11	15	20	25	29	34	38	43
88	48	52	57	61	66	71	75	80	84	89
89	94	98	*03	*07	*12	*17	*21	*26	*30	*35
0.90	41.40	44	49	53	58	63	67	72	76	81
91	86	90	95	99	*04	*09	*13	*18	*22	*27
92	42.32	36	41	45	50	55	59	64	68	73
93	78	82	87	91	96	*01	*05	*10	*14	*19
94	43.24	28	33	37	42	47	51	56	60	65
95	70	74	79	83	88	93	97	*02	*06	*11
96	44.16	20	25	29	34	39	43	48	52	57
97	62	66	71	75	80	85	89	94	98	*03
98	45.08	12	17	21	26	31	35	40	44	49
99	54	58	63	67	72	77	81	86	90	95
1.00	46.00	04	09	13	18	23	27	32	36	41
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.00	s 0.00 [0]	04 [7]	09 [4]	14 [1]	18 [8]	23 [5]	28 [2]	32 [9]	37 [6]	42 [3]
01	47	51	56	61	65	70	75	79	84	89
02	94	98	*03	*08	*12	*17	*22	*26	*31	*36
03	1.41	45	50	55	59	64	69	73	78	83
04	88	92	97	*02	*06	*11	*16	*20	*25	*30
05	2.35	39	44	49	53	58	63	67	72	77
06	82	86	91	96	*00	*05	*10	*14	*19	*24
07	3.29	33	38	43	47	52	57	61	66	71
08	76	80	85	90	94	99	*04	*08	*13	*18
09	4.23	27	32	37	41	46	51	55	60	65
0.10	4.70	74	79	84	88	93	98	*02	*07	*12
11	5.17	21	26	31	35	40	45	49	54	59
12	64	68	73	78	82	87	92	96	*01	*06
13	6.11	15	20	25	29	34	39	43	48	53
14	58	62	67	72	76	81	86	90	95	*00
15	7.05	09	14	19	23	28	33	37	42	47
16	52	56	61	66	70	75	80	84	89	94
17	99	*03	*08	*13	*17	*22	*27	*31	*36	*41
18	8.46	50	55	60	64	69	74	78	83	88
19	93	97	*02	*07	*11	*16	*21	*25	*30	*35
0.20	9.40	44	49	54	58	63	68	72	77	82
21	87	91	96	*01	*05	*10	*15	*19	*24	*29
22	10.34	38	43	48	52	57	62	66	71	76
23	81	85	90	95	99	*04	*09	*13	*18	*23
24	11.28	32	37	42	46	51	56	60	65	70
25	75	79	84	89	93	98	*03	*07	*12	*17
26	12.22	26	31	36	40	45	50	54	59	64
27	69	73	78	83	87	92	97	*01	*06	*11
28	13.16	20	25	30	34	39	44	48	53	58
29	63	67	72	77	81	86	91	95	*00	*05
0.30	14.10	14	19	24	28	33	38	42	47	52
31	57	61	66	71	75	80	85	89	94	99
32	15.04	08	13	18	22	27	32	36	41	46
33	51	55	60	65	69	74	79	83	88	93
34	98	*02	*07	*12	*16	*21	*26	*30	*35	*40
35	16.45	49	54	59	63	68	73	77	82	87
36	92	96	*01	*06	*10	*15	*20	*24	*29	*34
37	17.39	43	48	53	57	62	67	71	76	81
38	86	90	95	*00	*04	*09	*14	*18	*23	*28
39	18.33	37	42	47	51	56	61	65	70	75
0.40	18.80	84	89	94	98	*03	*08	*12	*17	*22
41	19.27	31	36	41	45	50	55	59	64	69
42	74	78	83	88	92	97	*02	*06	*11	*16
43	20.21	25	30	35	39	44	49	53	58	63
44	68	72	77	82	86	91	96	*00	*05	*10
45	21.15	19	24	29	33	38	43	47	52	57
46	62	66	71	76	80	85	90	94	99	*04
47	22.09	13	18	23	27	32	37	41	46	51
48	56	60	65	70	74	79	84	88	93	98
49	23.03	07	12	17	21	26	31	35	40	45
0.50	s 23.50 [0]	54 [7]	59 [4]	64 [1]	68 [8]	73 [5]	78 [2]	82 [9]	87 [6]	92 [3]
Δξ	0	1	2	3	4	5	6	7	8	9

Δξ	0	1	2	3	4	5	6	7	8	9
0.50	s 23.50 [0]	54 [7]	59 [4]	64 [1]	68 [8]	73 [5]	78 [2]	82 [9]	87 [6]	92 [3]
51	97	*01	*06	*11	*15	*20	*25	*29	*34	*39
52	24.44	48	53	58	62	67	72	76	81	86
53	91	95	*00	*05	*09	*14	*19	*23	*28	*33
54	25.38	42	47	52	56	61	66	70	75	80
55	85	89	94	99	*03	*08	*13	*17	*22	*27
56	26.32	36	41	46	50	55	60	64	69	74
57	79	83	88	93	97	*02	*07	*11	*16	*21
58	27.26	30	35	40	44	49	54	58	63	68
59	73	77	82	87	91	96	*01	*05	*10	*15
0.60	28.20	24	29	34	38	43	48	52	57	62
61	67	71	76	81	85	90	95	99	*04	*09
62	29.14	18	23	28	32	37	42	46	51	56
63	61	65	70	75	79	84	89	93	98	*03
64	30.08	12	17	22	26	31	36	40	45	50
65	55	59	64	69	73	78	83	87	92	97
66	31.02	06	11	16	20	25	30	34	39	44
67	49	53	58	63	67	72	77	81	86	91
68	96	*00	*05	*10	*14	*19	*24	*28	*33	*38
69	32.43	47	52	57	61	66	71	75	80	85
0.70	32.90	94	99	*04	*08	*13	*18	*22	*27	*32
71	33.37	41	46	51	55	60	65	69	74	79
72	84	88	93	98	*02	*07	*12	*16	*21	*26
73	34.31	35	40	45	49	54	59	63	68	73
74	78	82	87	92	96	*01	*06	*10	*15	*20
75	35.25	29	34	39	43	48	53	57	62	67
76	72	76	81	86	90	95	*00	*04	*09	*14
77	36.19	23	28	33	37	42	47	51	56	61
78	66	70	75	80	84	89	94	98	*03	*08
79	37.13	17	22	27	31	36	41	45	50	55
0.80	37.60	64	69	74	78	83	88	92	97	*02
81	38.07	11	16	21	25	30	35	39	44	49
82	54	58	63	68	72	77	82	86	91	96
83	39.01	05	10	15	19	24	29	33	38	43
84	48	52	57	62	66	71	76	80	85	90
85	95	99	*04	*09	*13	*18	*23	*27	*32	*37
86	40.42	46	51	56	60	65	70	74	79	84
87	89	93	98	*03	*07	*12	*17	*21	*26	*31
88	41.36	40	45	50	54	59	64	68	73	78
89	83	87	92	97	*01	*06	*11	*15	*20	*25
0.90	42.30	34	39	44	48	53	58	62	67	72
91	77	81	86	91	95	*00	*05	*09	*14	*19
92	43.24	28	33	38	42	47	52	56	61	66
93	71	75	80	85	89	94	99	*03	*08	*13
94	44.18	22	27	32	36	41	46	50	55	60
95	65	69	74	79	83	88	93	97	*02	*07
96	45.12	16	21	26	30	35	40	44	49	54
97	59	63	68	73	77	82	87	91	96	*01
98	46.06	10	15	20	24	29	34	38	43	48
99	53	57	62	67	71	76	81	85	90	95
1.00	s 47.00 [0]	04 [7]	09 [4]	14 [1]	18 [8]	23 [5]	28 [2]	32 [9]	37 [6]	42 [3]
Δξ	0	1	2	3	4	5	6	7	8	9

P.P. di 299."6

Δη′		0	1	2	3	4	5	6	7	8	9	Δη′
0.00	0′	0."00	0."30	0."60	0."90	1."20	1."50	1."80	2."10	2."40	2."70	0.00
01		3.00	3.30	3.60	3.89	4.19	4.49	4.79	5.09	5.39	5.69	01
02		5.99	6.29	6.59	6.89	7.19	7.49	7.79	8.09	8.39	8.69	02
03		8.99	9.29	9.59	9.89	10.19	10.49	10.79	11.09	11.38	11.68	03
04		11.98	12.28	12.58	12.88	13.18	13.48	13.78	14.08	14.38	14.68	04
05		14.98	15.28	15.58	15.88	16.18	16.48	16.78	17.08	17.38	17.68	05
06		17.98	18.28	18.58	18.87	19.17	19.47	19.77	20.07	20.37	20.67	06
07		20.97	21.27	21.57	21.87	22.17	22.47	22.77	23.07	23.37	23.67	07
08		23.97	24.27	24.57	24.87	25.17	25.47	25.77	26.07	26.36	26.66	08
09		26.96	27.26	27.56	27.86	28.16	28.46	28.76	29.06	29.36	29.66	09
0.10	0′	29.96	30.26	30.56	30.86	31.16	31.46	31.76	32.06	32.36	32.66	0.10
11		32.96	33.26	33.56	33.85	34.15	34.45	34.75	35.05	35.35	35.65	11
12		35.95	36.25	36.55	36.85	37.15	37.45	37.75	38.05	38.35	38.65	12
13		38.95	39.25	39.55	39.85	40.15	40.45	40.75	41.05	41.34	41.64	13
14		41.94	42.24	42.54	42.84	43.14	43.44	43.74	44.04	44.34	44.64	14
15		44.94	45.24	45.54	45.84	46.14	46.44	46.74	47.04	47.34	47.64	15
16		47.94	48.24	48.54	48.83	49.13	49.43	49.73	50.03	50.33	50.63	16
17		50.93	51.23	51.53	51.83	52.13	52.43	52.73	53.03	53.33	53.63	17
18		53.93	54.23	54.53	54.83	55.13	55.43	55.73	56.03	56.32	56.62	18
19		56.92	57.22	57.52	57.82	58.12	58.42	58.72	59.02	59.32	59.62	19
0.20	0′	59.92	* 0.22	* 0.52	* 0.82	* 1.12	* 1.42	* 1.72	* 2.02	* 2.32	* 2.62	0.20
21	1′	2.92	3.22	3.52	3.81	4.11	4.41	4.71	5.01	5.31	5.61	21
22		5.91	6.21	6.51	6.81	7.11	7.41	7.71	8.01	8.31	8.61	22
23		8.91	9.21	9.51	9.81	10.11	10.41	10.71	11.01	11.30	11.60	23
24		11.90	12.20	12.50	12.80	13.10	13.40	13.70	14.00	14.30	14.60	24
25		14.90	15.20	15.50	15.80	16.10	16.40	16.70	17.00	17.30	17.60	25
26		17.90	18.20	18.50	18.79	19.09	19.39	19.69	19.99	20.29	20.59	26
27		20.89	21.19	21.49	21.79	22.09	22.39	22.69	22.99	23.29	23.59	27
28		23.89	24.19	24.49	24.79	25.09	25.39	25.69	25.99	26.28	26.58	28
29		26.88	27.18	27.48	27.78	28.08	28.38	28.68	28.98	29.28	29.58	29
0.30	1′	29.88	30.18	30.48	30.78	31.08	31.38	31.68	31.98	32.28	32.58	0.30
31		32.88	33.18	33.48	33.77	34.07	34.37	34.67	34.97	35.27	35.57	31
32		35.87	36.17	36.47	36.77	37.07	37.37	37.67	37.97	38.27	38.57	32
33		38.87	39.17	39.47	39.77	40.07	40.37	40.67	40.97	41.26	41.56	33
34		41.86	42.16	42.46	42.76	43.06	43.36	43.66	43.96	44.26	44.56	34
35		44.86	45.16	45.46	45.76	46.06	46.36	46.66	46.96	47.26	47.56	35
36		47.86	48.16	48.46	48.75	49.05	49.35	49.65	49.95	50.25	50.55	36
37		50.85	51.15	51.45	51.75	52.05	52.35	52.65	52.95	53.25	53.55	37
38		53.85	54.15	54.45	54.75	55.05	55.35	55.65	55.95	56.24	56.54	38
39		56.84	57.14	57.44	57.74	58.04	58.34	58.64	58.94	59.24	59.54	39
0.40	1′	59.84	* 0.14	* 0.44	* 0.74	* 1.04	* 1.34	* 1.64	* 1.94	* 2.24	* 2.54	0.40
41	2′	2.84	3.14	3.44	3.73	4.03	4.33	4.63	4.93	5.23	5.53	41
42		5.83	6.13	6.43	6.73	7.03	7.33	7.63	7.93	8.23	8.53	42
43		8.83	9.13	9.43	9.73	10.03	10.33	10.63	10.93	11.22	11.52	43
44		11.82	12.12	12.42	12.72	13.02	13.32	13.62	13.92	14.22	14.52	44
45		14.82	15.12	15.42	15.72	16.02	16.32	16.62	16.92	17.22	17.52	45
46		17.82	18.12	18.42	18.71	19.01	19.31	19.61	19.91	20.21	20.51	46
47		20.81	21.11	21.41	21.71	22.01	22.31	22.61	22.91	23.21	23.51	47
48		23.81	24.11	24.41	24.71	25.01	25.31	25.61	25.91	26.20	26.50	48
49		26.80	27.10	27.40	27.70	28.00	28.30	28.60	28.90	29.20	29.50	49
0.50	2′	29.80	30.10	30.40	30.70	31.00	31.30	31.60	31.90	32.20	32.50	0.50
Δη′		0	1	2	3	4	5	6	7	8	9	Δη′

$\Delta\eta'$		0	1	2	3	4	5	6	7	8	9	$\Delta\eta'$
0.50	2'	29."80	30."10	30."40	30."70	31."00	31."30	31."60	31."90	32."20	32."50	0.50
51		32.80	33.10	33.40	33.69	33.99	34.29	34.59	34.89	35.19	35.49	51
52		35.79	36.09	36.39	36.69	36.99	37.29	37.59	37.89	38.19	38.49	52
53		38.79	39.09	39.39	39.69	39.99	40.29	40.59	40.89	41.18	41.48	53
54		41.78	42.08	42.38	42.68	42.98	43.28	43.58	43.88	44.18	44.48	54
55		44.78	45.08	45.38	45.68	45.98	46.28	46.58	46.88	47.18	47.48	55
56		47.78	48.08	48.38	48.67	48.97	49.27	49.57	49.87	50.17	50.47	56
57		50.77	51.07	51.37	51.67	51.97	52.27	52.57	52.87	53.17	53.47	57
58		53.77	54.07	54.37	54.67	54.97	55.27	55.57	55.87	56.16	56.46	58
59		56.76	57.06	57.36	57.66	57.96	58.26	58.56	58.86	59.16	59.46	59
0.60	2'	59.76	* 0.06	* 0.36	* 0.66	* 0.96	* 1.26	* 1.56	* 1.86	* 2.16	* 2.46	0.60
61	3'	2.76	3.06	3.36	3.65	3.95	4.25	4.55	4.85	5.15	5.45	61
62		5.75	6.05	6.35	6.65	6.95	7.25	7.55	7.85	8.15	8.45	62
63		8.75	9.05	9.35	9.65	9.95	10.25	10.55	10.85	11.14	11.44	63
64		11.74	12.04	12.34	12.64	12.94	13.24	13.54	13.84	14.14	14.44	64
65		14.74	15.04	15.34	15.64	15.94	16.24	16.54	16.84	17.14	17.44	65
66		17.74	18.04	18.34	18.63	18.93	19.23	19.53	19.83	20.13	20.43	66
67		20.73	21.03	21.33	21.63	21.93	22.23	22.53	22.83	23.13	23.43	67
68		23.73	24.03	24.33	24.63	24.93	25.23	25.53	25.83	26.12	26.42	68
69		26.72	27.02	27.32	27.62	27.92	28.22	28.52	28.82	29.12	29.42	69
0.70	3'	29.72	30.02	30.32	30.62	30.92	31.22	31.52	31.82	32.12	32.42	0.70
71		32.72	33.02	33.32	33.61	33.91	34.21	34.51	34.81	35.11	35.41	71
72		35.71	36.01	36.31	36.61	36.91	37.21	37.51	37.81	38.11	38.41	72
73		38.71	39.01	39.31	39.61	39.91	40.21	40.51	40.81	41.10	41.40	73
74		41.70	42.00	42.30	42.60	42.90	43.20	43.50	43.80	44.10	44.40	74
75		44.70	45.00	45.30	45.60	45.90	46.20	46.50	46.80	47.10	47.40	75
76		47.70	48.00	48.30	48.59	48.89	49.19	49.49	49.79	50.09	50.39	76
77		50.69	50.99	51.29	51.59	51.89	52.19	52.49	52.79	53.09	53.39	77
78		53.69	53.99	54.29	54.59	54.89	55.19	55.49	55.79	56.08	56.38	78
79		56.68	56.98	57.28	57.58	57.88	58.18	58.48	58.78	59.08	59.38	79
0.80	3'	59.68	59.98	* 0.28	* 0.58	* 0.88	* 1.18	* 1.48	* 1.78	* 2.08	* 2.38	0.80
81	4'	2.68	2.98	3.28	3.57	3.87	4.17	4.47	4.77	5.07	5.37	81
82		5.67	5.97	6.27	6.57	6.87	7.17	7.47	7.77	8.07	8.37	82
83		8.67	8.97	9.27	9.57	9.87	10.17	10.47	10.77	11.06	11.36	83
84		11.66	11.96	12.26	12.56	12.86	13.16	13.46	13.76	14.06	14.36	84
85		14.66	14.96	15.26	15.56	15.86	16.16	16.46	16.76	17.06	17.36	85
86		17.66	17.96	18.26	18.55	18.85	19.15	19.45	19.75	20.05	20.35	86
87		20.65	20.95	21.25	21.55	21.85	22.15	22.45	22.75	23.05	23.35	87
88		23.65	23.95	24.25	24.55	24.85	25.15	25.45	25.75	26.04	26.34	88
89		26.64	26.94	27.24	27.54	27.84	28.14	28.44	28.74	29.04	29.34	89
0.90	4'	29.64	29.94	30.24	30.54	30.84	31.14	31.44	31.74	32.04	32.34	0.90
91		32.64	32.94	33.24	33.53	33.83	34.13	34.43	34.73	35.03	35.33	91
92		35.63	35.93	36.23	36.53	36.83	37.13	37.43	37.73	38.03	38.33	92
93		38.63	38.93	39.23	39.53	39.83	40.13	40.43	40.73	41.02	41.32	93
94		41.62	41.92	42.22	42.52	42.82	43.12	43.42	43.72	44.02	44.32	94
95		44.62	44.92	45.22	45.52	45.82	46.12	46.42	46.72	47.02	47.32	95
96		47.62	47.92	48.22	48.51	48.81	49.11	49.41	49.71	50.01	50.31	96
97		50.61	50.91	51.21	51.51	51.81	52.11	52.41	52.71	53.01	53.31	97
98		53.61	53.91	54.21	54.51	54.81	55.11	55.41	55.71	56.00	56.30	98
99		56.60	56.90	57.20	57.50	57.80	58.10	58.40	58.70	59.00	59.30	99
1.00	4'	59.60	59.90	60.20	60.50	60.80	61.10	61.40	61.70	62.00	62.30	1.00
$\Delta\eta'$		0	1	2	3	4	5	6	7	8	9	$\Delta\eta'$

Multipli dei numeri da $0^s.01$ a $0^s.50$ oppure da $0''.1$ a $5''.0$

1	2	3	4	5	6	7	8	9
01	02	03	04	05	06	07	08	09
02	04	06	08	10	12	14	16	18
03	06	09	12	15	18	21	24	27
04	08	12	16	20	24	28	32	36
05	10	15	20	25	30	35	40	45
06	12	18	24	30	36	42	48	54
07	14	21	28	35	42	49	56	63
08	16	24	32	40	48	56	64	72
09	18	27	36	45	54	63	72	81
10	20	30	40	50	60	70	80	90
11	22	33	44	55	66	77	88	99
12	24	36	48	60	72	84	96	108
13	26	39	52	65	78	91	104	117
14	28	42	56	70	84	98	112	126
15	30	45	60	75	90	105	120	135
16	32	48	64	80	96	112	128	144
17	34	51	68	85	102	119	136	153
18	36	54	72	90	108	126	144	162
19	38	57	76	95	114	133	152	171
20	40	60	80	100	120	140	160	180
21	42	63	84	105	126	147	168	189
22	44	66	88	110	132	154	176	198
23	46	69	92	115	138	161	184	207
24	48	72	96	120	144	168	192	216
25	50	75	100	125	150	175	200	225
26	52	78	104	130	156	182	208	234
27	54	81	108	135	162	189	216	243
28	56	84	112	140	168	196	224	252
29	58	87	116	145	174	203	232	261
30	60	90	120	150	180	210	240	270
31	62	93	124	155	186	217	248	279
32	64	96	128	160	192	224	256	288
33	66	99	132	165	198	231	264	297
34	68	102	136	170	204	238	272	306
35	70	105	140	175	210	245	280	315
36	72	108	144	180	216	252	288	324
37	74	111	148	185	222	259	296	333
38	76	114	152	190	228	266	304	342
39	78	117	156	195	234	273	312	351
40	80	120	160	200	240	280	320	360
41	82	123	164	205	246	287	328	369
42	84	126	168	210	252	294	336	378
43	86	129	172	215	258	301	344	387
44	88	132	176	220	264	308	352	396
45	90	135	180	225	270	315	360	405
46	92	138	184	230	276	322	368	414
47	94	141	188	235	282	329	376	423
48	96	144	192	240	288	336	384	432
49	98	147	196	245	294	343	392	441
50	100	150	200	250	300	350	400	450
1	2	3	4	5	6	7	8	9

Multipli dei numeri da $0^{s}.51$ a $1^{s}.00$ oppure da $5''.1$ a $10''.0$

1	2	3	4	5	6	7	8	9
51	102	153	204	255	306	357	408	459
52	104	156	208	260	312	364	416	468
53	106	159	212	265	318	371	424	477
54	108	162	216	270	324	378	432	486
55	110	165	220	275	330	385	440	495
56	112	168	224	280	336	392	448	504
57	114	171	228	285	342	399	456	513
58	116	174	232	290	348	406	464	522
59	118	177	236	295	354	413	472	531
60	120	180	240	300	360	420	480	540
61	122	183	244	305	366	427	488	549
62	124	186	248	310	372	434	496	558
63	126	189	252	315	378	441	504	567
64	128	192	256	320	384	448	512	576
65	130	195	260	325	390	455	520	585
66	132	198	264	330	396	462	528	594
67	134	201	268	335	402	469	536	603
68	136	204	272	340	408	476	544	612
69	138	207	276	345	414	483	552	621
70	140	210	280	350	420	490	560	630
71	142	213	284	355	426	497	568	639
72	144	216	288	360	432	504	576	648
73	146	219	292	365	438	511	584	657
74	148	222	296	370	444	518	592	666
75	150	225	300	375	450	525	600	675
76	152	228	304	380	456	532	608	684
77	154	231	308	385	462	539	616	693
78	156	234	312	390	468	546	624	702
79	158	237	316	395	474	553	632	711
80	160	240	320	400	480	560	640	720
81	162	243	324	405	486	567	648	729
82	164	246	328	410	492	574	656	738
83	166	249	332	415	498	581	664	747
84	168	252	336	420	504	588	672	756
85	170	255	340	425	510	595	680	765
86	172	258	344	430	516	602	688	774
87	174	261	348	435	522	609	696	783
88	176	264	352	440	528	616	704	792
89	178	267	356	445	534	623	712	801
90	180	270	360	450	540	630	720	810
91	182	273	364	455	546	637	728	819
92	184	276	368	460	552	644	736	828
93	186	279	372	465	558	651	744	837
94	188	282	376	470	564	658	752	846
95	190	285	380	475	570	665	760	855
96	192	288	384	480	576	672	768	864
97	194	291	388	485	582	679	776	873
98	196	294	392	490	588	686	784	882
99	198	297	396	495	594	693	792	891
100	200	300	400	500	600	700	800	900
1	2	3	4	5	6	7	8	9

Multipli dei numeri da $1^{s}.01$ a $1^{s}.50$ oppure da $10''.1$ a $15''.0$

1	2	3	4	5	6	7	8	9
101	202	303	404	505	606	707	808	909
102	204	306	408	510	612	714	816	918
103	206	309	412	515	618	721	824	927
104	208	312	416	520	624	728	832	936
105	210	315	420	525	630	735	840	945
106	212	318	424	530	636	742	848	954
107	214	321	428	535	642	749	856	963
108	216	324	432	540	648	756	864	972
109	218	327	436	545	654	763	872	981
110	220	330	440	550	660	770	880	990
111	222	333	444	555	666	777	888	999
112	224	336	448	560	672	784	896	1008
113	226	339	452	565	678	791	904	1017
114	228	342	456	570	684	798	912	1026
115	230	345	460	575	690	805	920	1035
116	232	348	464	580	696	812	928	1044
117	234	351	468	585	702	819	936	1053
118	236	354	472	590	708	826	944	1062
119	238	357	476	595	714	833	952	1071
120	240	360	480	600	720	840	960	1080
121	242	363	484	605	726	847	968	1089
122	244	366	488	610	732	854	976	1098
123	246	369	492	615	738	861	984	1107
124	248	372	496	620	744	868	992	1116
125	250	375	500	625	750	875	1000	1125
126	252	378	504	630	756	882	1008	1134
127	254	381	508	635	762	889	1016	1143
128	256	384	512	640	768	896	1024	1152
129	258	387	516	645	774	903	1032	1161
130	260	390	520	650	780	910	1040	1170
131	262	393	524	655	786	917	1048	1179
132	264	396	528	660	792	924	1056	1188
133	266	399	532	665	798	931	1064	1197
134	268	402	536	670	804	938	1072	1206
135	270	405	540	675	810	945	1080	1215
136	272	408	544	680	816	952	1088	1224
137	274	411	548	685	822	959	1096	1233
138	276	414	552	690	828	966	1104	1242
139	278	417	556	795	834	973	1112	1251
140	280	420	560	700	840	980	1120	1260
141	282	423	564	705	846	987	1128	1269
142	284	426	568	710	852	994	1136	1278
143	286	429	572	715	858	1001.	1144	1287
144	288	432	576	720	864	1008	1152	1296
145	290	435	580	725	870	1015	1160	1305
146	292	438	584	730	876	1022	1168	1314
147	294	441	588	735	882	1029	1176	1323
148	296	444	592	740	888	1036	1184	1332
149	298	447	596	745	894	1043	1192	1341
150	300	450	600	750	900	1050	1200	1350
1	2	3	4	5	6	7	8	9

Multipli dei numeri da 1.51 a 1.80 **Tav. 17 d.**

1	2	3	4	5	6	7	8	9
151	302	453	604	755	906	1057	1208	1359
152	304	456	608	760	912	1064	1216	1368
153	306	459	612	765	918	1071	1224	1377
154	308	462	616	770	924	1078	1232	1386
155	310	465	620	775	930	1085	1240	1395
156	312	468	624	780	936	1092	1248	1404
157	314	471	628	785	942	1099	1256	1413
158	316	474	632	790	948	1106	1264	1422
159	318	477	636	795	954	1113	1272	1431
160	320	480	640	800	960	1120	1280	1440
161	322	483	644	805	966	1127	1288	1449
162	324	486	648	810	972	1134	1296	1458
163	326	489	652	815	978	1141	1304	1467
164	328	492	656	820	984	1148	1312	1476
165	330	495	660	825	990	1155	1320	1485
166	332	498	664	830	996	1162	1328	1494
167	334	501	668	835	1002	1169	1336	1503
168	336	504	672	840	1008	1176	1344	1512
169	338	507	676	845	1014	1183	1352	1521
170	340	510	680	850	1020	1190	1360	1530
171	342	513	684	855	1026	1197	1368	1539
172	344	516	688	860	1032	1204	1376	1548
173	346	519	692	865	1038	1211	1384	1557
174	348	522	696	870	1044	1218	1392	1566
175	350	525	700	875	1050	1225	1400	1575
176	352	528	704	880	1056	1232	1408	1584
177	354	531	708	885	1062	1239	1416	1593
178	356	534	712	890	1068	1246	1424	1602
179	358	537	716	895	1074	1253	1432	1611
180	360	540	720	900	1080	1260	1440	1620
1	2	3	4	5	6	7	8	9

1920
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» II. » » » 1891, » 306. . . . . . » 15
» III. » » » 1893, » 442. . . . . . » 15
» IV. » » Torino, 1894, » 620. . . . . . » 15
» V. **P. G. Lais,** Vice-Direttore. Roma, 1898, » 808. . . . . . » 15
» VI. **P. A. Rodriguez,** Direttore. » 1902, » 493. . . . . . » 10
» VII. » » » 1905, » 230. . . . . . » 5

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Nr. I **J. G. Hagen S. J.,** *La Rotation de la Terre, ses Preuves mécaniques anciennes et nouvelles.* Rome, 1911, pp. VIII et 189 (fa parte del Vol. I). . . . . . L. 16
App. 1. **J. Stein S. J.,** *La Rotation de la Terre, les Preuves de M. Kamerlingh Onnes.* Rome, 1910, pp. 72 (fa parte del Vol. I). . . . . . » 8
» 2. **J. G. Hagen S. J.,** *La Rotation de la Terre, continuation des Expériences.* Rome, 1912, pp. 53 (completa il Vol. I) . . . . . . » 8
» II. **J. Stein S. J.,** *Calixte III et la Comète de Halley.* Rome, 1909, pp. 41 (fa parte del Vol. II). . » 5
» III. **J. G. Hagen S. J.,** *Colori stellari osservati a Roma negli anni 1844-1846 da Benedetto Sestini S. J., esposti in nuovo ordine e riosservati.* Roma, 1911, pp. XLVI e 119 (fa parte del Vol. III) » 12
» IV. **M**[quis] **de Mauroy,** *Catalogue de la collection de Météorites de l'Observatoire du Vatican.* Rome, 1913, pp. IV et 53 (completa il Vol. II). . . . . . » 10
» V. **J. G. Hagen S. J.,** *Die veränderlichen Sterne. Geschichtlich-technischer Teil* (in corso di stampa; farà parte del Vol. IV).
» VI. **J. Stein S. J.,** *Die veränderlichen Sterne. Mathematisch-physikalischer Teil* (in preparazione; completerà il Vol. IV).
» VII. **F. Krüger,** *Neuer Katalog farbiger Sterne zwischen dem Nordpol und 23 Grad südlicher Deklination.* Wien, 1914, pp. XX und 130 (fa parte del Vol. III) . . . . . . » 15
» VIII. **H. Osthoff,** *Die Farben der Fixsterne, auf Grund eigener Beobachtungen.* Wien 1916 pp. XLIV und 52 (fa parte del Vol. III). . . . . . » 15
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» X. **J. G. Hagen S. J.,** *A Preparatory Catalogue for a « Durchmusterung » of Nebulae. The Zone Catalogue* (in corso di stampa; farà parte del Vol. VI).
» XI. **J. G. Hagen S. J.,** *Aggiunte al Catalogo dell'Atlas stellarum variabilium.* Roma, 1916 pp. 272 (fa parte del Vol. V) . . . . . . » 5
» XII. **J. G. Hagen S. J.,** *Aggiunte alle Carte dell'Atlas stellarum variabilium* (in corso di stampa; completerà il Vol. V).
» XIII. **J. G. Hagen S. J.,** *A preparatory Catalogue for a « Durchmusterung » of Nebulae. The General Catalogue* (in preparazione; farà parte del Vol. VI).

MISCELLANEA ASTRONOMICA. — PARTE I[a] - *Articoli 1-12*. . . . . . L. 5

SERIE III ASTROFOTOGRAFICA.

1. - CATALOGO ASTROGRAFICO STELLARE
IN DIECI VOLUMI CON APPENDICI.

Zona +64° . . . . . . L. 25
» +63° . . . . . . » 20
» +62° . . . . . . » 20
» +61° . . . . . . » 20
» +60° (in corso di stampa).
» +59° e seguenti (in preparazione).
Appendice I. - **Dott. Cerulli,** *Prontuari per la conversione delle coordinate rettilinee in coordinate sferiche nelle Zone Vaticane* . . . . . . » 10
» II. - **Dott. Cerulli,** *Prontuari per la conversione delle coordinate sferiche in coordinate rettilinee nelle Zone Vaticane* (in preparazione).

2. - CARTE FOTOGRAFICHE DEL CIELO
(PER OGNI CARTA L. 1).

Zona + 61° N° 776 777.
Zona + 55° N° 1 2 3 4 5 6 7 8 10 10[bis] 11 12 13 14 17 18 19 21 22 23 25 26 27 28 29 30 31 33 34 35 36 37 38 39 40 41 42 43 44 53 56 57 58 65 66 68 69 70 71 73 74 81 83 84 87 88 89 91 92 93 94 95 96 97 98 99 100 101 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120.